Agriculture
in the classroom
dans la salle de classe

91-05098/

GROWING OUR FUTURE

AGRICULTURE IN THE CLASSROOM CONFERENCE

OCTOBER 14 - 16, 1990
DELTA BRUNSWICK
SAINT JOHN
(NEW BRUNSWICK)

Agriculture Canada

New Brunswick

Agriculture
in the classroom
dans la salle de classe

GROWING OUR FUTURE

THE THIRD NATIONAL AGRICULTURE IN THE CLASSROOM CONFERENCE
DELTA BRUNSWICK HOTEL
SAINT JOHN, NEW BRUNSWICK
OCTOBER 14, 15 & 16, 1990

INFORMATION:

- **Bus tour** participants should be assembled at the hotel lobby (front desk) at **8:45 am on Sunday**. Please dress appropriately. Your $35.00 registration fee will cover lunch.
- Admission to sessions and meal functions will be by name tag only.
- Sessions are non-smoking.
- Please be on time for sessions. **You should arrive a little early in order to obtain a translation device.**
- Interpretation is provided for all plenary sessions . The interpretation for concurrent sessions will be staggered. Therefore, carefully check the scheduling to coordinate your choices and the availability of translation.
- Please advise the **Conference Committee Staff** if we can help you in any way. **Staff are wearing blue ribbons.**
- Not all examples of resource materials are available in french and english.
- Booth exhibits are open:
  Sunday - 3:30pm. to 5:30pm.
  Monday - 10:30am. to 11:00am. (nutrition break)
  after lunch until 1:30pm.
  3:30pm. to 4:00pm. (nutrition break)
  6:00pm. to 7:00pm. (reception)
  Tuesday - 10:10am. to 10:30am. (nutrition break)

PROGRAM:

Saturday, October 13

8:00pm. - 10:00pm. Registration, McAvity Room

Sunday, October 14

8:00am. - 10:00pm.	Registration, Foyer Conference Area
9:00am. - 3:30pm.	Tour of Agriculture Industry - Meet in Hotel Lobby
3:30pm. - 5:30pm.	Exhibit Viewing, Foyer Conference Area
5:30pm. - 6:30pm.	Reception, Sullivan's
6:30pm. - 8:00pm.	Banquet and Official Opening, Ballroom A & B Speaker: Hon. Alan Graham, Minister of Agriculture, Province of New Brunswick Harold Williams, Town Crier of Saint John Mayor Elsie Wayne, Saint John Hon. Russell King, Minister of Advanced Education & Training, Province of New Brunswick. Entertainment: Shades of Harmony
9:00pm. - 11:00pm.	Hospitality Suite, Room 367

Monday, October 15

7:30am. - 8:15am.	Walking Tour, Saint John
8:30am. - 10:30am.	Panel, Ballroom C **North American Overview of Agriculture in the Classroom** Chairman: Ian Willsher, Agriculture Canada Speakers: * Joanne Lemke, Assistant Manager Public Relations, Alberta Cattle Commission * Joyce Canning, Rural Organizations and Service Branch, Ontario Ministry of Agriculture & Food * Jacques Boucher, directeur de l'enseignement en agro-alimentaire, Québec * Susan Horne, Nova Scotia Department of Agriculture & Marketing * Shirley Traxler, AITC Co-ordinator, US Department of Agriculture, Washington

10:30am. - 11:00am.	Nutrition Break, Foyer Exhibit Viewing
11:00am. - 12:00pm.	**Public Perceptions of Agriculture**, Ballroom C * Arthur Black, CBC Radio Toronto
12:00pm. - 1:30pm.	Lunch, Ballroom A & B Exhibit Viewing after Lunch
1:30pm. - 1:40pm.	Meet in Ballroom C
1:40pm. - 2:30pm.	First Series of **Concurrent Sessions** Go to Break Off Rooms. **Please see attached schedule.**
2:30pm. - 2:40pm.	Switch to Next Session Choice.
2:40pm. - 3:30pm.	Second Set of **Concurrent Sessions**
3:30pm. - 4:00pm.	Nutrition Break, Foyer Exhibit Viewing
4:00pm. - 5:30pm.	Panel - **Agriculture in the 1990's** Ballroom C Chairman: Robert Stokes, New Brunswick Department of Advanced Education & Training * Dr. Franklin Eggert, University of Maine * Sherry Porter, Atlantic Director Canadian Council of Grocery Distributers * S. M. Davis, Lindsay Collegiate and Vocational Institute, Ontario * Dr. Freeman McEwen, Ontario Agricultural College, University of Guelph * Percy Waddy, Dairy Producer, New Brunswick
6:00pm. - 7:00pm.	Cash Bar & Social Hour, Foyer Exhibit Viewing
7:00pm.	Banquet, Ballroom A & B Acadian Night

Tuesday, October 16

8:15am. - 8:45am.	Ballroom C **Education and Agriculture -** * Margaret Norrie McCain, Chancellor Mount Allison University, New Brunswick
8:45am. - 9:30am.	**Careers in Agriculture** * Brian Crouse, Student Placement Officer Nova Scotia Agricultural College
9:30am. - 10:10am.	**Science, Technology and Society** * Yvan Jacques, General Manager Agricultural Institute of Canada
10:10am. - 10:30am.	Nutrition Break, Foyer Exhibit Viewing
10:30am. - 12:00pm.	Ballroom C Panel - **Pulling it all Together: Our Commitment to Agriculture in the Classroom** Chairman: Mark Holland, New Brunswick Department of Education Speakers: * Keith Russell - Atlantic Farmers Council * Shirley Traxler - AITC Co-ordinator, USDA, Washington * Normand Léger - Director Communications and Education Branch, New Brunswick Department of Agriculture * Barry Lydon, Director of Program Development and Implementation, New Brunswick Department of Education (Anglophone) * Keith Coughlan, Director of Program Development and Implementation, New Brunswick Department of Education (Francophone)
12:00 noon	Lunch, Ballroom A & B Guest Speaker: Hon. Shirley Dysart Minister of Education Province of New Brunswick Conference Closing

Please return the page in your conference binder on your province's/organization's AITC activities to the registration desk as you leave. Thank you.

CONCURRENT SESSIONS/SÉANCES SIMULTANÉES

1:30 MEET IN BALLROOM C/13h30 RENDEZ-VOUS DANS LE BALLROOM C

McAvity Interpretation Interprétation	Allison 4B	Manchester Interpretation Interprétation	Allison 4A	Robertson 3B	Ballroom C Interpretation Interprétation	Robertson 3B	Mallard
1:40 GO TO FIRST SERIES OF CONCURRENT SESSIONS/ 13h40 RENDEZ-VOUS À LA PREMIÈRE SÉRIE DE SÉANCES SIMULTANÉES							
*Resources Within the Community *Ressources au sein de la collectivité Nelly Omvlee	*Planning Teacher Training Suzanne Leitch	*The Role of Agri-Business *Le rôle des affaires agricoles Gary Griffith	*Going After The Funds Don McLean	*Teaching Kids on the Farm Megan Camp	*L'intégration de l'agriculture au programme scolaire actuel *Integration of Agriculture into a School Curriculum Jacques Boucher	*L'intégration de l'agriculture dans la salle de classe Josée Lapierre	*Integration of Agriculture into a School Curriculum Karen McDonald/ Vanessa Headford
2:30 - 2:40 SWITCH TO SECOND SERIES OF SESSIONS/ 14h30 - 14h40 RENDEZ-VOUS À LA DEUXIÈME SÉRIE DE SÉANCES SIMULTANÉES							
*Planning Teacher Training *Planification de la formation des enseignants Suzanne Leitch	*Resources Within the Community Nelly Omvlee	*Going After the Funds *Levée de fonds Don McLean	*The Role of Agri-Business Gary Griffith	*L'intégration de l'agriculture au programme scolaire actuel Jacques Boucher	*Teaching Kids on the Farm *Comment enseigner aux enfants à la ferme Megan Camp	*Integration of Agriculture into the Classroom Les Asselstine/ Roger Boyd	*Integration of Agriculture into a School Curriculum Karen McDonald/ Vanessa Headford

Agriculture
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GROWING OUR FUTURE

CULTIVER LES RESSOURCES DE L'AVENIR

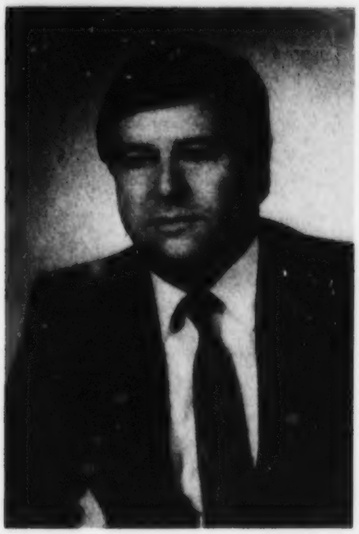
THIRD NATIONAL AITC CONFERENCE

TROISIÈME CONFÉRENCE NATIONALE

New Brunswick Department of Agriculture • Ministère de l'Agriculture du Nouveau-Brunswick
C.P./P.O. BOX 6000 • FREDERICTON • NEW BRUNSWICK/NOUVEAU-BRUNSWICK • E3B 5H1 • TEL: (506) 453-2759 • FAX: (506) 453-7170

OCTOBER 14 - 16, 1990 • DU 14 AU 16 OCTOBRE 1990

New
Nouveau Brunswick



I am pleased to welcome you to this National **Agriculture in the Classroom** Conference. The theme **Growing Our Future** sets a positive tone for your deliberations which will involve the sharing of ideas on how agriculture can be taught more effectively in our school to give students a better appreciation of the role this industry plays in the economics of Canada.

Young people today are faced with many choices as they complete their high school education. There are many careers in the agricultural industry that would be of interest to them if they had more information available. As you discuss the various topics on your agenda, I trust you will keep in mind that the future of agriculture depends on the those who will be taking their place in society within a very few years.

I hope the various sessions will be rewarding and you will have some time to explore our province and see the great natural beauty we have here.

Je suis heureux de vous souhaiter la bienvenue à cette conférence nationale de **l'Agriculture dans la salle de classe**. Le thème de cette conférence, **Cultiver les ressources de l'avenir**, devrait imprimer un ton positif aux discussions, pour que l'échange d'idées permette de trouver des moyens plus efficaces d'enseigner l'agriculture dans nos écoles et de donner aux élèves un meilleur aperçu du rôle de cette industrie dans l'économie du Canada.

Plusieurs choix s'offrent aux jeunes d'aujourd'hui à la fin de leurs études secondaires. L'industrie agricole génère de nombreuses possibilités de carrières susceptibles d'intéresser la jeunesse, pourvu qu'elle en soit bien informée. En abordant les divers sujets de la conférence, puissiez-vous ne pas oublier que l'avenir de l'agriculture dépend des personnes qui prendront la relève d'ici quelques années.

J'ose espérer que les séances seront enrichissantes et que vous aurez le temps de visiter notre province et d'en admirer la beauté naturelle.

Le ministre de l'Agriculture

Alan Graham
Minister of Agriculture

New
Nouveau Brunswick

The New Brunswick Department of Education is pleased to sponsor the Third Conference on **Agriculture in the Classroom** in conjunction with the Departments of Agriculture and Advanced Education and Training.

The Department of Education recognizes the important role of agriculture in the provincial economy and has added an agricultural model to its curriculum. This will ensure our youth will learn to appreciate the many aspects of this important economic activity to our province.

All school districts in the province will be participating in this conference and I hope all participants will benefit from the informative and challenging sessions.

Le ministère de l'Éducation du Nouveau-Brunswick est heureux de s'associer avec les ministères de l'Agriculture et de l'Enseignement supérieur et de la Formation pour la tenue de cette 3e Conférence sur l'**agriculture dans la salle de classe**.

Le ministère de l'Éducation reconnaît l'importance de l'agriculture dans l'économie de la province, et c'est à ce titre qu'il a intégré un modèle sur l'agriculture dans son programme scolaire. Nos jeunes peuvent ainsi découvrir des facettes de cette activité économique et les connaissances acquises permettront de mieux l'apprécier.

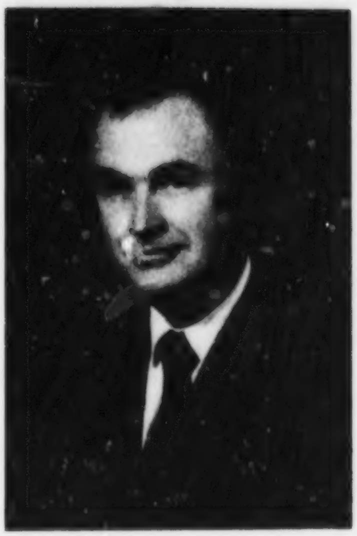
Tous les districts scolaires de la province seront présents lors de cette conférence. Je souhaite donc aux participants des journées des plus enrichissantes.

La ministre de l'Éducation

Shirley Dysart

Shirley Dysart
Minister of Education

New
Nouveau Brunswick



I would like to take this opportunity to congratulate the participants who have gathered from across the country to discuss **Agriculture in the Classroom**.

As the Minister of Advanced Education and Training, I realize the importance of keeping students informed of the many employment opportunities available.

Agriculture plays an important role in our province with many social and economic benefits. Integrating agricultural studies in the classroom will help raise awareness to careers available and foster the growth of this valuable industry.

Your efforts at this conference should be strongly encouraged as you help strengthen the commitment to **Growing Our Future** in the province.

Je désire féliciter les participants et les participantes qui sont venus de tous les coins du Canada afin de discuter de l'**Agriculture dans la salle de classe**.

À titre de ministre de l'Enseignement supérieur et de la Formation, je reconnais qu'il est important de tenir les élèves au courant des nombreuses possibilités d'emploi qui s'offrent à eux.

L'agriculture joue un rôle prépondérant dans notre province; de cette industrie découlent de nombreux avantages sociaux et économiques. Par l'intégration de l'agriculture dans la salle de classe, on parviendra à sensibiliser les jeunes aux possibilités de carrières dans ce domaine et à stimuler la croissance de cette importante industrie.

Votre travail pendant cette conférence mérite d'être vivement encouragé pour raffermir votre engagement à **Cultiver les ressources de l'avenir** dans notre province.

Le ministre de l'Enseignement
supérieur et de la Formation,

Russell H. T. King

Russell H.T. King
Minister of Advanced Education and Training

New
Nouveau Brunswick

On behalf of the Conference Committee, it is a pleasure to welcome you to this conference. The need to communicate the story of agriculture has existed since the beginning of organized agriculture. Over time, the need has become more intensified as the efficiency of the agricultural industry advanced and more and more consumers were provided with an ever expanding supply of high quality agricultural products by fewer and fewer farmers. In 1990 each Canadian farmer is providing food for 50 consumers. Primary agriculture is a highly mechanized system of animal and plant specialists who are trained in a wide range of technologies and are skilled in the business of producing animals and crops. This system is closely coupled to a preparation, processing and distribution system that provides the link to consumers in the form of food in our retail stores and other market outlets.

The art and the need of communicating an appreciation of the complexity of the agricultural industry is just unfolding. The involvement of our farm organizations in stimulating action in this area is recognized and encouraged. New Brunswick has had representatives at the two previous **Agriculture in the Classroom** Conferences. In addition, we have attended similar conferences in the USA. We acknowledge the importance of developing a strong network throughout the continent to work at developing an

Au nom du Comité, j'ai le grand plaisir de vous accueillir à cette conférence. Le besoin de faire connaître l'histoire de l'agriculture existe depuis le début d'une agriculture organisée. Avec le temps, ce besoin s'est fait plus précis, parallèlement à une efficacité accrue de l'agriculture industrielle et à un nombre grandissant de consommateurs à qui un nombre de plus en plus restreint d'agriculteurs offrent un éventail toujours plus large de produits agricoles de qualité supérieure. L'agriculture primaire est un système hautement mécanisé dans lequel des spécialistes des animaux et des plantes, formés à des technologies très diverses, ont acquis une grande compétence dans l'industrie de production animale et agricole. Ce système est étroitement lié à un système de préparation, de transformation et de distribution qui assure le lien avec les consommateurs sous la forme d'aliments vendus dans les magasins de détail et autres points de vente.

L'art et le besoin de communiquer la perception de la complexité de l'industrie agricole commence à se faire jour. La participation, en ce domaine, de nos organismes agricoles par des actions stimulantes est reconnue et encouragée. Des représentants du Nouveau-Brunswick étaient présents aux deux conférences précédentes sur l'**Agriculture dans la salle de classe**. Nous avons également assisté à des conférences sur le sujet aux États-Unis. Nous savons l'importance

effective way to teach our people, especially our youth, about this important industry. This is critical, because our population will always need food and the means of obtaining it must be understood by the people who consume it. We must effectively convey an understanding about what is done to ensure and sustain a supply of safe and nourishing food products to support an ever expanding population.

This conference should be viewed as a continuation of the beginning of an approach to teaching an understanding of agriculture through our school systems. We challenge all to be aware of agriculture and to take every opportunity to inform our youth of the various opportunities that exist for a career in agriculture. The need for continued communication amongst the participants and the need to extend the work that is begun here to the cities, towns and villages and the respective school systems represents a continuing challenge. Collectively, we can make an important contribution to ensuring that the complexities of the agricultural industry are advanced to all citizens through our education system.

de mettre en place un solide réseau à l'échelle du continent pour oeuvrer à l'élaboration d'une méthode pédagogique efficace capable de sensibiliser notre population, et en particulier les jeunes, à l'importance de cette industrie. La question est primordiale car le besoin en nourriture sera toujours là, et il est bon que les consommateurs en comprennent le processus de production. Nous devons faire connaître au grand public, de manière efficace, les méthodes appliquées pour assurer et maintenir un approvisionnement en produits alimentaires nourrissants et sans danger, destinés à subvenir aux besoins d'une population en perpétuelle croissance.

Il faut considérer la présente conférence comme la continuation d'une ébauche d'approche pédagogique pour l'enseignement agricole au sein du système scolaire. Nous vous engageons toutes et tous à vous familiariser aux principes de l'agriculture et à profiter de toutes les possibilités offertes pour informer la jeunesse des diverses chances de carrière dans le domaine. Le besoin d'un échange permanent entre les participants et le besoin d'étendre aux villes, aux villages et à leurs structures éducationnelles respectives le travail commencé ici est un défi permanent. Nous pouvons collectivement contribuer à cette tâche de manière significative pour s'assurer que soit réalisée, par le biais de notre système éducatif, la promotion, auprès des citoyens, du domaine complexe de l'industrie agricole.

Président de conférence
Cultiver les ressources de l'avenir

C. E. Smith
Conference Chairperson
Growing Our Future

Minister of Agriculture
Ministre de l'Agriculture

A MESSAGE FROM THE FEDERAL MINISTER OF AGRICULTURE

It certainly is with great pleasure that I extend on behalf of the Government of Canada a warm welcome to all of you attending the Third National Agriculture in the Classroom Conference in Saint John, New Brunswick.

Agriculture Canada recognizes the need to take urban children beyond the supermarket and open up a whole new world for them by bringing agriculture into the classroom. What we want for the children and their families is to appreciate that agriculture is one of the most important industries in the world because few things we encounter in our lives are more basic than food.

I congratulate all of you across Canada who are involved in the various Agriculture in the Classroom programs on your efforts to increase agriculture awareness.

Yours sincerely,

Ottawa, Canada K1A 0C5

Agriculture
in the classroom
dans la salle de classe

GROWING OUR FUTURE

AGRICULTURE IN THE CLASSROOM CONFERENCE

OCTOBER 14-16, 1990

DELTA BRUNSWICK, SAINT JOHN, N.B.

Conference Purpose:

The **Agriculture in the Classroom** conference, **GROWING OUR FUTURE**, is a continuation of an across Canada series of conferences aimed at increasing the visibility and understanding of agriculture within the educational system.

This is New Brunswick's opportunity to educate the 'educators' of students who are our future consumers of agricultural products and our future human resource pool of those working in agriculture be it as a farmer, agrologist, researchers or agri-business employee.

The school system has moved away from emphasizing agriculture in the classroom. There is less agricultural content in the curriculum and appreciation for agriculture is diminishing.

A positive approach to agriculture in the school can do much to counter the negative images caused by misunderstandings about chemical usage, environmental issues, animal welfare, food safety and farm economics.

The conference should draw a wide variety of participants: teachers, school board representatives, Federal and Provincial Department of Education and Agriculture personnel, college faculty staff, agricultural industry representatives and farm organizations.

Objectives:

1. To raise the level of consciousness within the school systems of the need for agriculture education.

2. To provide the participants with techniques and processes for increasing agriculture content within the school curricula.

3. To develop an awareness and understanding of the major issues facing agriculture into the 21st century.

cont'd

4. To provide conference participants with up to date information on careers in agriculture.

5. Through conference sessions and media coverage assist in improving the image of agriculture in an attempt to change attitudes about the industry.

6. To create an opportunity for co-operation between government, industry, and the public sectors.

Agricultural Awareness through such programs as **'Agriculture in the Classroom'** is a way to market agriculture as a consumer product, a career, and as an economic industry vital to our province to the young through the school system. In order to achieve this goal teachers must be equipped with resources and information that can easily be integrated into the school system.

The 1990's has been dubbed the decade for environmental concerns. Science teachers must be aware of how agriculture and the environment interact; Home Economics teachers must know the real facts concerning food safety, guidance counsellors need to know that the career choices in agriculture are very diverse; Economics teachers must be aware that agriculture is a thriving industry.

Those students who do not enter an agricultural field will still affect agriculture as consumers, investors and decision makers. Where does the general public including teachers receive most of their information about agriculture? From the media where in most cases the failures and the problems are highlighted and not the successes and challenges.

This conference provides teachers and others interested in integrating agriculture into the school system sessions on how to incorporate agriculture into the classroom and instruction on how to access people and resources for teaching aids.

To ensure people are 'agriculturally literate' and understand the farming community we must start to educate them early when they are in the school system. Agriculture must be presented to students as dynamic, progressive, environmentally responsible, and a profitable industry. This cannot be achieved without the support and understanding of teachers and school boards who set the curriculum and whose instruction and influence impact students on a daily basis.

We hope all participants enjoy the program and leave with fresh ideas on how to implement **Agriculture into the Classroom** through the sessions and personal contacts you make during the conference.

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SESSION NOTES

Topic & Speaker	Points to Remember	Suggestions for My Province

Notes:

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After this conference we would like a record of A.I.T.C. activities in Canada. Please record your information and leave it at the registration desk.

Province Representing: ____________________

Description of my A.I.T.C. Activity:
(Please use the back of this sheet if necessary) ____________________

Sponsor:
Name ____________________
Address ____________________
Telephone ____________________

My:
Name ____________________
Address ____________________
Telephone ____________________

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GROWING OUR FUTURE/CULTIVER LES RESSOURCES DE L'AVENIR

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The Committee greatfully acknowledges the support of the following sponsors:

Les membres du comité organisateur sont reconnaissants de l'appui des commanditaires suivants :

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The Royal Bank of Canada/la banque Royale du Canada
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Royal Gardens Ltd.
Bank of Nova Scotia/banque de la Nouvelle-Écosse

The Canada/New Brunswick Cooperative Agreement on Agriculture and Food Development 1989-1994

L'Entente de coopération Canada/Nouveau-Brunswick sur le développement du secteur agro-alimentaire 1989-1994

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Agriculture Canada
McCain Foods Ltd./Ltée
N.B. Potato Agency/L'Agence de la pomme de terre du N.-B.
N.B. Milk Marketing Board/Régie de mise en marché du lait du N.-B.
J.I. Case Ltd./Ltée
Maine Ag in the Classroom
United States Department of Agriculture
N.B. Department of Agriculture/ministère de l'Agriculture du N.-B.
N.B. Department of Advanced Education & Training/ministère de l'Enseignement supérieur et de la Formation du N.-B.
N.B. Department of Tourism, Recreation & Heritage/ ministère du Tourisme, des Loisirs et du Patrimoine
N.B. Cattle Marketing Agency/Agence de commercialisation du bétail du N.-B.
Farm Credit Corporation Canada/Société du crédit agricole du Canada
Statistics Canada/Statistique Canada
Town of Hartland
Canadian Egg Marketing Board/Office canadien de commercialisation des oeufs
City of Saint John
Moosehead Breweries Ltd./brasserie Moosehead Ltée
Ganong Bros. Ltd.
Connors Bros. Ltd.

Agriculture
in the classroom
dans la salle de classe

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New Brunswick Federation of Agriculture
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E3B 3Z2

Woodstock Community College
Contact: Ray Mortimer
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Woodstock, N.B.
E0J 2B0

Fresh For Flavor
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Suite 310
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Ottawa, Ontario
K2C 3W7

Xeed Productions
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New Brunswick 4-H Council
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New Brunswick Department of Agriculture
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Agriculture Canada/Prairie Farm Rehabilitation Administration
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Regina, Saskatchewan
S4P 0R5

Alberta CAP Program
Contact: Joanne Lemke
Alberta Cattle Commission
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Calgary, Alberta
T2E 7H7

Ontario Ministry of Agriculture and Food
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New Brunswick Milk Marketing Board
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New Brunswick Farm Women
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Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec
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Perfection Foods
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P.O. Box 658, Rothesay
N.B. E0G 2W0

Agricultural Employment Services/Services d'emploi agricole
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Nova Scotia Agricultural College
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John Deere Limited
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AITC Associates Inc.
Contact: Sharon Weitzel
RR #2 Tavistock
Ontario N0B 2R0

Beef Information Centre
Contact: Mary Elizabeth Stewart
37 Pictou Road, Truro
N.S. B2N 2R9

FARM TOURS, OCTOBER 14, 1990

WELCOME TO ROYAL GARDENS LTD.

Royal Gardens Ltd. is one of the Maritime's major wholesalers providing in house inventory service to the Flower and Craft Industry of Atlantic Canada.

Royal Gardens Ltd. started construction in 1975. The original greenhouse is 2.25 acres under a double layer polyethylene roof with approximately 35,500 sq. ft. of chrysanthemums and 51,500 sq. ft. of rose production. We plant over 500,000 mum plants and cut over 1,000,000 roses a year.

The mum and rose environment is completely automated by two P.B.8 control panels. A Central Smith injector system injects liquid fertilizer into an automatic watering system. Carbon dioxide is produced in the winter by 4 Priva CO^2 generators.

Until 1982, heat was provided by two 125 H.P. Cleaver Brooks oil boilers burning 125,000 gallons of oil a year. In 1982 we installed an additional 300 H.P. wood boiler which consumes 2000+ cords of hardwood a year, putting dollars into the local economy.

1980 marked the addition of an 8,000 sq. ft. service building consisting of coolers, storage, packing and shipping areas. Later we added an additional 5,000 sq. ft. to the second floor for florist and craft supplies.

Royal Gardens is an agent for Ivey's Inc. who are one of the leading distributors of floral supplies in Canada. We also represent East West Gift Centre Ltd. of Vancouver, a major craft supplier along with a full basket line.

Imports make up a substantial percentage of our sales and come from all over the world - U.S.A., South America, Mexico, Holland, Australia and Israel, and the Pacific Rim.

Our computer was obtained in 1984 to assist in accounting and record keeping.

In 1986 we completed an additional 1 acre of greenhouse. This facility holds our propagation, foliage, bedding plants and holiday pot plant crops.

In 1987 we opened a branch office on Barrington Street, Halifax and it serves our Nova Scotia customers from that location.

Hope you enjoyed your visit at Royal Gardens. Come again!

Our Management and Staff look forward to serving you.

SUSSEX VIEW FARM

The farm was started by Grant's Father, A. M. Floyd in 1939. He built the house the next year. Those were the days of World War II. After the house was started, all the carpenters were conscripted to build army huts for the trainees at Camp Sussex. A retired carpenter, well along in his 80's came to the rescue and under his supervision a group of labourers finished the house.

The prefix "Sussex View" was granted to A. M. Floyd forty-three years ago and transferred to Grant six years later.

Grant and Vivian moved to the farm in 1950. During the years, more land was purchased and when the last block was added in 1967, the "original grant" was completed - it is now Sussex View.

Over the years, a house for the employee, a free stall barn and a milking parlor, a horizontal silo, and a barn for dry cows and heifers were added. Finally in 1985, a new upright silo replaced the old upright and a barn was built for feeding haylage from silo to the milking cows. A new home for Grant and Vivian was completed and they moved in, in March 1984. A computerized feeding system was added in June 1988.

"Sussex View Farm Ltd." was established in 1985 bringing David McCullum into the business. Dave is in charge of the farm operations - a full time job. Grant and Dave share the decision making. Grant and Vivian take care of the books, records and finances. There is one full time employee and some casual help, usually students, during the summer.

Dave and his wife, Phyllis, have four children, Darcie, Timmy, Shane and Leanne. Rick Melanson is the full time employee; he and his wife, Kathy, have three children.

Of the 440 acres in Sussex View, 240 acres are cultivated; the rest is bush land. About 90 acres are used for growing alfalfa for haylage - we take two cuttings. The remaining cultivated land is used for hay and pasture. Much of the farm has been tile drained.

The dairy cow herd numbers about 72 - all registered and on the A.D.L.I.C. milk recording system. The rolling herd average is 178 - 192. There are about 75 head of young stock which includes bred heifers, open heifers and calves.

The cows are fed haylage, hay and mill feeds in the barn. Dry cows and heifers go to pasture in summer. All heifer calves are raised as replacements.

RAYMOND AND LAURA FOLKINS

We have a small farm comprising of 350 acres. The farming commodities are Beef and Christmas Trees. We have only been farming for 8 years so most things are still in the growing stage.

At present we have 50 beef animals which are mostly simmental with a pure bred simmental bull.

We have approximately 20 acres of Christmas trees which are coming into production. A Balsam fir tree takes 8 to 10 years for maturity. Trees are labour intensive, as each year there is fertilizing, shearing or pruning, weed and bug control. It takes 7-10 years for a tree to mature to 8 feet.

We produce large trees on a small scale. Two years ago, we had a 30 ft. tree from our farm chosen as "New Brunswick's tree". This tree was placed in front of the Legislature Building in Fredericton. Last year we placed a 16 ft. one in the Champlain Mall as the centre focal point, as well as two 20 ft. ones in the Saint John Trade and Convention Centre.

At present, we sell half our trees on a wholesale market and the other half we retail ourselves. We also produce wreaths, garland, and all the accessories for Christmas decorating.

We welcome you to our farm and hope you have a pleasant visit with us.

Agriculture
in the classroom
dans la salle de classe

NAMES AND ADDRESSES OF SPEAKERS AND SESSION CHAIRPERSONS

NOMS ET ADRESSES DES CONFÉRENCIERS ET DES ANIMATEURS DE SÉANCES

GROWING OUR FUTURE

CULTIVER LES RESSOURCES DE L'AVENIR

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Roger Boyd
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Arthur Black

Arthur Black is host of CBC Radio's popular weekend tunes'n'talk show, **Basic Black**. Coast to coast every Saturday morning at about 10 o'clock, 450,000 regular listeners tune in to hear that patent Black voice and chuckle. Second only to *The Royal Canadian Air Farce*, **Basic Black** is the highest rated variety program on the network.

In his beginning days with the CBC, Arthur read Les Nesman-type agricultural reports and then went on to hosting Radio-Noon. In the early 1980's, he found his niche in **Basic Black**. Black also writes a weekly column he sells to about 30 Canadian newspapers and has published *Back to Black*, a compilation of his monologues from the show.

Arthur Black lives in the Elora-Fergus area outside Toronto. The topic he will be addressing at our conference is *Public Perceptions of Agriculture*.

LES ASSELSTINE
B.A., M.Ed.

Les is on secondment to the Ontario Ministry of Agriculture and Food from the Waterloo County Board of Education. His background includes teaching at the elementary panel and consulting in the areas of primary education and environmental studies. He also served as project leader for the Ontario P/J Science policy document "Science is Happening Here". As an Agriculture in the Classroom Consultant, one of his main tasks will be to reach the many students and teachers in the large urban areas of central Ontario.

JACQUES BOUCHER

Jacques Boucher is in charge of the Québec Department of Agriculture, Fisheries and Food's agriculture awareness program in the schools.

With the support of educational consultants, teachers, and farmers, he develops instructional material for elementary and secondary schools so that young people will learn more about agriculture and the related careers. He also represents the Department as a member of the Association de la jeunesse rurale du Québec (Québec Rural Youth Association). For close to ten years, he taught at the Institut de technologie agro-alimentaire (Agri-Food Technology Institute) in La Pocatière.

He has a B.Sc. in Agriculture and a Certificate in Administration from Université de Laval, as well as a Certificate in Education from the Université du Québec.

ROGER BOYD
B.Sc., B.Ed.

Roger has joined the Ontario Ministry of Agriculture and Food on a secondment from the Oxford County Board of Education. His background as a teacher of science, environmental science and horticulture at the secondary school level will be well utilized in his new role as an Agriculture in the Classroom consultant. In addition to serving the western part of Ontario, he will be assisting the Ontario team in extending the program into various aspects of the secondary school curriculum.

MEGAN CAMP

Megan Camp comes to us from Shelburne, Vermont. She is the Program Director for Shelburne Farms, an institution whose mission is to preserve, maintain, and adapt its historic buildings, landscape and productive farmland for teaching and demonstrating the stewardship of natural and agricultural resources.

Megan has been the co-director of Vermont Agriculture in the Classroom Partners for five years and has also served as the Chairperson for the Vermont Statewide Environmental Education Programs for the last four years. Megan recently joined the steering committee for Project Food, Land and the People, a national curriculum, and was asked to serve on the Governor's Agricultural Advisory Committee.

JOYCE CANNING

Joyce is an Education Specialist with the Rural Organizations and Services Branch, Ontario Ministry of Agriculture and Food - a position she has held for two years. Her duties include supervision of four teacher consultants, administration of the budget and program at the provincial level, editing a biannual newsletter and monitoring printing and distribution of teacher resources.

Joyce, a native of Nova Scotia, started her career as a Home Economics teacher in 1960. After 9 years of teaching in Nova Scotia, Saskatchewan and Ontario she joined the Ontario Ministry of Agriculture and Food as a District Home Economist. During her 21 years with OMAF she has also been a Regional Supervisor of Home Economists, a Rural Organizations Consultant (Leadership) and, most recently, Education Specialist.

Joyce holds two degrees from Acadia University in Home Economics and Education and a M.Sc. in Extension Studies from the University of Guelph. She is married and lives in a small village north of Guelph, Ontario.

KEITH COUGHLAN

Keith Coughlan is presently director of Program Development (francophone) with the provincial Department of Education.

Keith has taught school at elementary, junior high and high school levels. He was assistant professor at the education faculty of the Université de Moncton, principal of école Saint-Anne in Fredericton, and director general of school districts 1 (Saint-Quentin) and 7 (Tracadie).

Keith Coughlan has been working with the Department of Education since November 1988. He is responsible for supervising, developing and implementing various study programs in the francophone schools of New Brunswick.

BRIAN CROUSE

Brian grew up on a small dairy farm near Bridgewater, Nova Scotia. He is a graduate of the Nova Scotia Agricultural College and the University of Guelph with a Bachelor of Science degree in Agriculture. For eight years, Brian worked with the Extension Services Branch of the Nova Scotia Department of Agriculture and Marketing as the Regional 4-H Representative and then continued with the department for two years as the Agricultural Representative in Annapolis County.

For the past four years, he has worked as the Student Placement Officer at the Nova Scotia Agricultural College. His role is to coordinate the employment activity on campus and provide career information and counselling. He is a member of the Nova Scotia Institute of Agrologists, the Agricultural Institute of Canada, and ACCIS-The Graduate Workforce Professionals.

Brian is married and has a 16 month old daughter.

S. M. (MERTON) DAVIS

Merton Davis graduated from the Ontario Agricultural College in 1957. Following two years in Sales and Service with Master Feeds, he taught Agriculture, Biology and Environmental and General Science at Lindsay Collegiate and Vocational Institute from 1959-1989, becoming Science Head in 1974.

Mr. Davis was on the writing team that created the Environmental Science Guidelines in Ontario (1972). He co-hosted the Environmental Science Teachers Association of Ontario Annual Conference at Sir Sandford Fleming College in 1985 and was President of E.S.T.A.O.. The following year he was a founding member of the Pine Ridge branch of the Ontario Institute of Agrologists.

Mr. Davis is married to a teacher and has 3 sons.

SHIRLEY DYSART

Shirley Dysart is a graduate of teachers' college, the University of New Brunswick and also attended the University of London on a Beaverbrook Overseas Scholarship.

She was first elected the MLA for Saint John Park in 1974 and was re-elected in 1978, 1982 and 1987. She served as interim leader of the Liberal Party for two months in 1985. On October 27, 1987 she was appointed Minister of Education.

Her community involvement includes being vice-president of the N. B. Competitive Festival of Music, a member of the Executive Committee of Saint John Bicentennial Inc., a member of the Boards of Governors for the Beaverbrook Art Gallery and a member of the Board of Directors for Saint John Family Services. She is a past President of the Catholic Women's League Council, a past President of the University of New Brunswick Alumni Council, and a former Chairperson of the District 20 School Board.

She and her husband Eric have one son.

FRANKLIN EGGERT

Franklin Eggert obtained his B.Sc. in Agriculture from Cornell University and completed his Ph.D. in 1949.

Dr. Eggert began his long association with the University of Maine in 1949 as the Extension Fruit Specialist and Head of the Horticulture Department at the Agricultural Experimental Station. He went on to become Professor and the Head of the Horticulture Department, Dean of Graduate Study, Director of Research and the Chairperson of the Plant and Soil Science Department. In 1986 he was granted Professor Emeritus of Horticulture.

Dr. Eggert belongs to many organizations including the American Pomological Society, American Institute for Biological Sciences, Maine Organic Farmers and Gardeners Association, Maine State Soil and Water Conservation Commission, Phi Kappa Phi, Sigma Xi and the Maine Agriculture in the Classroom Association Executive Committee to name a few.

Dr. Eggert has many publications to his credit and has led a active role in research in the area of horticulture and soil management. He is married and has four sons and resides in Verona, Maine.

GARY GRIFFITH

Gary Griffith was raised on a beef farm just south of Hamilton, Ontario. He attended university in Waterloo, Ontario and graduated with a Bachelor of Science and Masters Degree in Arts in 1971.

At that point, Gary joined John Deere Limited as a territory manager in southern Ontario.

From that time to the present he has worked in several areas of the company including wholesale credit, financial management and most recently, product training, where he carries the position of Sales and Service Training Manager.

Much of his time is spent in the area of training and educationg at various levels. Gary co-ordinates the training courses for John Deere employees and the dealer organization, particularly in the areas of sales and service. He is also the liaison with the community colleges and agricultural schools in Eastern Canada to provide them with a variety of training materials.

ALAN ROBERT GRAHAM

Alan Graham was born in Kent County, New Brunswick, in 1942 and has been a lifelong resident of that area.

He was educated in Rexton schools and later took accounting courses at the University of Moncton before beginning a career in business.

He has been involved in lumber, Christmas tree marketing, realty, transportation and agriculture in his native county.

In 1967 and 1970, he was elected as Member of the Legislative Assembly for the County of Kent. He was re-elected in 1974, 1978, 1982 and 1987 as M.L.A. for the riding of Kent Centre. His legislative service has included work on numerous committees, especially those involved with natural resources and as caucus chairman.

Active in his community, Mr. Graham is a member of the Rexton Lions Club, the Rexton Credit Union, the local Cancer Society and several farm and youth organizations. He and his wife, Constance, have five children.
He was appointed Minister of Agriculture on October 27, 1987.

VANESSA HEADFORD

Vanessa Headford is a graduate of the University of Saskatchewan, holding a Bachelor of Science in Agriculture degree, with an Animal Science major. As Public Relations Coordinator at Canadian Western Agribition in Regina, Saskatchewan, she is responsible for coordinating the communications plan and sponsorship program for the annual event. She has a strong interest in agriculture education and sits on the Executive as Corporate Secretary of the Agriculture Insight Foundation, the Saskatchewan corporation founded in 1988 to increase the awareness of agriculture to the general public and in the school system.

MARK HOLLAND

Mark Holland is originally from the United Kingdom where he received his schooling and his B.Sc. in Physics. In 1973, he immigrated to Canada and joined the science department at Oromocto High School. Mark returned to school in 1986 to take courses in guidance and counselling and then seconded a year with the Department of Education in the Evaluation Branch. He then returned to Oromocto as head of the science department. In 1990, he was again seconded to the Department of Education, this time as acting Science Consultant. Mark completed his Masters of Education (Administration) this year at the University of New Brunswick.

Married to a mathematics teacher, Mark has a six year old daughter and lives in the Fredericton area. He is a member of the New Brunswick Teachers' Association and its Science Council. His hobbies include gardening, carpentry, cross-country skiing, and the 'Englishman's version of skating'.

SUSAN HORNE

Susan Horne is Supervisor of the Home Economics Section, Nova Scotia Department of Agriculture and Marketing. She graduated from Mount Saint Vincent University in 1973 with a Bachelor of Science Degree in Home Economics Education.

Since her graduation Susan has been employed with the Nova Scotia Department of Agriculture and Marketing.

Susan has a keen interest in Extension and served as President of the Canadian Agricultural Extension Council, and Director of the Canadian Society of Extension. Currently she is chairing the Nova Scotia Agricultural Awareness Committee.

YVAN JACQUES

Yvan Jacques is the Executive Vice-President and General Manager of the Agricultural Institute of Canada. Mr. Jacques has extensive administrative and management experience in both the public and the private sectors. He was the former Assistant Deputy of the International Programs Branch and the Marketing and Economics Branch, Agriculture Canada. Prior to joining Agriculture Canada, he was the Vice-President and General Manager of Myriad Detergents Inc., a subsidiary of Lever Brothers Ltd.

From 1973 to 1979, he was with the Quebec Provincial Government as the General Manager of one of the Provincial Crown Corporations and also Assistant Deputy Minister in the Department of Agriculture and Natural Resources. Mr. Jacques also held senior management positions in the meat packing, vegetable processing, animal feed, and pesticides sectors.

Mr. Jacques holds a Bachelor's Degree in Agricultural Science from the University of Montreal and an MBA from the University of Sherbrooke. He is a member of the Agricultural Institute of Canada, the Ontario Institute of Agrologists, l'Ordre des agronomes de la Province de Quebec, and the American Marketing Association.

RUSSELL H. T. KING

Dr. Russell King received his Bachelor of Science degree from Mount Allison University and was employed as a high school science teacher from 1964 to 1967. He obtained his Doctor of Medicine degree from Dalhousie University Medical School in 1972 and since that time has been a family physician in Fredericton.

Elected to the Legislative Assembly on October 13, 1987, Dr. King represents the constituency of Fredericton South. He was sworn in as Minister of Advanced Education and Training on October 27, 1987.

He is the provincial Minister responsible for the establishment and operation of the Federal/Provincial Youth Strategy and is the Vice-Chairman of the Cabinet Committee on Communications.

JOSÉE LAPIERRE
BSc, MSc, BEd

Josée is an elementary school teacher for the Wellington County Separate School Board, on loan to the Ontario Ministry of Agriculture and Food since January 1990. She provides services in French for the Province of Ontario. Her scientific training and her experience in education are very useful to her in preparing new educational resources.

NORMAND A. LÉGER

Normand A. Léger was appointed director of Communications and Education, Department of Agriculture, in April of 1990. His responsibilities include an Agricultural Awareness program.

Prior to coming to agriculture, he was senior information officer with Communications New Brunswick, supervisor of special projects and organized communications for numerous special projects and official visits to the province. He was supervisor of N.B. Inquiries and planned and offered numerous courses on emergency communications.

For 12 years, Normand A. Léger was a reporter with L'Évangéline newspaper, also sports editor and interim news editor.

He was coach of minor hockey, football, lacrosse and football teams; program director at Moncton Boys' and Girls' Club; responsible for a weekly radio program and acts as consultant to a number of news bulletins.

SUZANNE LEITCH

Suzanne Leitch is co-founder of Southwestern Ontario Women in Support of Agriculture (WSA). She has brought noted speakers to rural audiences and is respected for her key role in promoting Agriculture in the Classroom/Community (AITC) in Ontario and in other provinces of Canada.

In 1987, she helped to plan and chaired the First National Agriculture in the Classroom Conference. The conference committee recognized that continued effort to promote the concept of AITC was needed. A consulting group AITC Associates Inc. was formed and Suzanne became the editor of the first national AITC newsletter, "Connections/Connexions".

Suzanne was honoured to receive the 1988 Ontario Ministry of Agriculture and Food's Centennial Award for outstanding service to the agriculture and food Industry.

Locally, Suzanne co-founded the Middlesex Association for Food and Agriculture Awareness. The charitable, non-profit, organization serves as umbrella for AITC projects.

Suzanne and her husband Allan are partners in Lynhurst Farms a registered, Holstein, dairy operation located near London, Ontario. They are parents of daughters, Jennifer and Meghan. Suzanne teaches part-time for the Middlesex County Board of Education.

JOANNE LEMKE

Joanne Lemke is the Alberta Cattle Commission's assistant manager - public relations. Lemke coordinates the Commission's public relations programs and is also involved with beef promotion and advertising and market development efforts, both domestic and international.

She has been with the Commission for almost seven years.

Ms. Lemke graduated from Mount Royal College in Calgary with a public relations diploma. She completed her public relations practicum at the Calgary General Hospital and worked in the oil industry before moving to the Alberta Cattle Commission.

She was raised on a farm in central Alberta.

BARRY LYDON

Barry Lydon was born and raised in the Borough of Queens in New York City. He completed his elementary education there and returned to his family's native province of New Brunswick to pursue high school and post-secondary education. He holds Bachelor of Arts and Bachelor of Education degrees from St. Thomas University, Fredericton, New Brunswick and a Master of Education degree in Curriculum and Instruction from the University of New Brunswick, Fredericton, New Brunswick.

Mr. Lydon began his teaching career in Sussex, New Brunswick and in 1975 accepted an appointment to the New Brunswick Department of Education as Consultant in French as a Second Language Education.

In 1985 he was appointed Director of Professional Development for the Department of Education and currently he is Acting Director of Program Development and Implementation with the Department.

MARGARET NORRIE McCAIN

Margaret Norrie McCain is the Chancellor of Mount Allison University which is located in Sackville, New Brunswick. Ms. McCain is very active in the fields of education and the arts. She is currently a member on the Board of Regents for Mount Allison University, a Director of the National Ballet School, and on the Advisory Council of the Memramcook School for the Performing Arts. She is also involved with the Muriel McQueen Fergusson Foundation and is a member of the Canadian Fund of Official Residences Council.

Ms. McCain received her Bachelor of Arts in Honours History from Mount Allison University and was granted her Bachelor of Social Work from the University of Toronto.

Her family has strong roots in agriculture in New Brunswick and Nova Scotia and most of her childhood was spent living on a farm.

She resides in Florenceville where her husband's family own and operate the multinational agri-food company, McCain Foods Ltd.

KAREN McDONALD

Karen McDonald holds a Bachelor of Education degree with a major in Science and French. She is currently working on a Master's Degree in Curriculum and Instruction. She has been seconded for a two year period for the agriculture project. As the Educational Consultant for agriculture with Saskatchewan Education she is responsible for the integration of agricultural topics and issues into existing and developing curricula from Kindergarten to Grade 12, materials, evaluation and liaises with industry organizations and agencies. She has been actively involved in the livestock and grain industry for many years.

FREEMAN McEWAN

Freeman McEwan is the Dean of the Ontario Agricultural College. He received his B.Sc. from MacDonald College and his M.Sc. and Ph.D from the University of Wisconsin in the disciplines of Entomology and Plant Physiology.

He has served on numerous boards and committees and has held various academic and research positions. He is currently the Chairman of the Task Force to respond to Federal Pesticides Registration Review for the Agricultural Institute of Canada. His areas of interest lie in the teaching and research of biology and control of vegetable insects and pesticides in the environment.

Freeman was granted the Gold Medal from the Entomological Society of Canada. A native "Islander", he received an Honourary Doctor of Law from the University of Prince Edward Island in 1986.

DON McLEAN

Don McLean categorizes himself as "working retired". This is an accurate description as he currently holds three key positions in agriculture: the Executive Secretary of the Western Canada Fertilizer Association, the Secretary Treasurer of the Canadian Feed Industry Association: B.C. Division, and Director of the B.C. Agriculture in the Classroom Foundation.

He retired in 1986 from his position of General Manager of Green Valley Fertilizer Limited in Surrey, British Columbia. Prior to that, Don had worked in Toronto as the Assistant General Manager of Agrico Canada Ltd.

Don originated from Middlesex County, Ontario (which is one of the pioneer regions for Agriculture in the Classroom promotion and support). He came from a farming background and received his Bachelor of Science in Agriculture from the Ontario Agricultural College and is a member of the Agricultural Institute of Canada.

NELLY OMVLEE

Nelly Omvlee originates from Bodegraven, South Holland. She and her family immigrated to Canada in 1977 and now live on a dairy farm near Woodstock, New Brunswick. Nelly is active on her own farm taking care of young cattle and maintaining farm records.

She is extensively involved in the farming industry. Nelly is a member of the Carleton County Farm Women Association, a member of the Board of Directors for the N. B. Milk Foundation, Director of the Carleton-Victoria Milk Committee, and public relations chairperson for the local area dairy producers. In her capacity as P. R. Chairperson, Nelly has been extensively involved in promoting the dairy industry in the school system as well as at fairs and trade shows.

SHERRY PORTER

Sherry is the Regional Director for the Canadian Council of Grocery Distributors. This involves being responsible for all representational work for the large retail and wholesale chains in Atlantic Canada and agricultural issues on a national basis.

Sherry worked for 10 years with the Nova Scotia Department of Agriculture and Marketing in the development of marketing and promotional programs for primary producers and processors of agricultural products within the province. She has also worked with National Sea Products Limited as a Marketing Manager.

Sherry is past president of the Nova Scotia Agricultural College Alumni Board and has held several posts with the N.S. Institute of Agrologists. Currently, she is the Vice President of the Agricultural Institute of Canada Research Foundation and sits on the N.S. Trade Council.

KEITH RUSSELL

Keith is the Executive Secretary of the Atlantic Farmers Council. The Council represents the Provincial Federations of Agriculture and Agricultural Co-operatives in Atlantic Canada. Born and raised on a dairy farm in Amherst Point, Nova Scotia, Keith was educated at the Nova Scotia Agricultural College, MacDonald College and McGill University.

Keith spent most of his employment years with Co-op Atlantic in Public Relations and Advertising and as Manager of the Agricultural Marketing and Development Division. Prior to his years at Co-op Atlantic he was a vocational agriculture teacher in New Brunswick and Quebec for 5 years. Keith also worked with CBC with their Farm and Fisheries Broadcasts.

In 1988, Keith was granted the Distinguished Agrologist award by the Nova Scotia Institute of Agrologists.

DR. CHESLEY SMITH

Dr. Chesley Smith is the Chairperson of the Third National Agriculture in the Classroom Conference. He is the Executive Director of the new Potato Development Directorate with the New Brunswick Department of Agriculture.

Dr. Smith attended the Nova Scotia Agricultural College where he took the 2 year Diploma Course. He then received his Bachelor of Science Degree in Agriculture from McGill University and went on to Rutgers University where he earned his Ph. D. in Horticulture/Plant Pathology.

An active person in promoting agriculture and especially N.B. potatoes, Ches is a National Director on the Canadian Horticultural Council, on the board of Directors for Potatoes Canada, a member of the European Association for Potato Research, Potato Association of America, and the American Pomological Society. He is an Honourary Life Member of the Canadian Seed Growers' Association.

Ches has travelled extensively to various countries throughout the world such as Argentina, Uruguay, Brazil, Rome, Belgium, Germany, Denmark, Netherlands, England, and Scotland in promoting New Brunswick potatoes.

Ches and his wife Joyce live in Oromocto.

BOB STOKES

Bob Stokes is a graduate of the Ontario Agricultural College - University of Guelph and the University of New Brunswick.

Prior to moving to New Brunswick in 1975, he worked as an Extension Horticulturist with the Ontario Ministry of Agriculture and Food. He was Provincial Potato Specialist with the New Brunswick Department of Agriculture until joining the Department of Advanced Education and Training in 1982. He is program chair for agriculture, trades and pre-technology training at the Community College in Woodstock.

ELSIE WAYNE

Elsie Wayne was first elected to Saint John Common Council in 1977 and served two, three-year terms before successfully running for Mayor in 1983. Mayor Wayne was re-elected in the 1986 civic election and again in the 1989 civic election. She is also the first woman Mayor in Canada's first incorporated city.

An enthusiastic community booster known for her selling and communications skill, Mayor Wayne helped make her city a household word across the country and around the world by zealously promoting such events as the 1985 Jeux Canada Games, Participaction, Festival By the Sea and the World Chess Festival. She has successfully put her battle cry of the "Greatest Little City In The East" on the lips of Saint Johners and visitors alike.

IAN WILLSHER

An Ontario native, Ian is a graduate of Kemptville College of Agriculture Technology. As Special Projects Coordinator for the Agriculture Development Branch of Agriculture Canada, Ian, since 1987 has been the National Coordinator for the Agriculture in the Classroom Program providing a national linkage between the various provincial AITC programs.

Ian is also responsible for human resource development including rural leadership training and agriculture awareness. He is Agriculture Canada's Director on the Canadian 4-H Council which includes liaison with activities of the Canadian 4-H Council and the various provincial 4-H programs.

Ian is also responsible for working with various human resource development groups such as the National Steering Committee for Farmers With Disabilities with whom he is currently developing their organization's self reliance strategy.

SHIRLEY TRAXLER

Shirley Traxler has been the director of the U. S. Department of Agriculture's Ag in the Classroom program since 1985. Prior to that she was Associate Director of the Secretary's Office of Public Liaison. During that time she was a member of the Task Force which guided the Ag in the Classroom program at the national level.

She was responsible for planning and carrying out the five regional meetings where action groups were formed to implement Ag in the Classroom programs at the State level. As a result of these meetings, 35 State programs were founded. There is now an Ag in the Classroom program in every State, Guam, the Virgin Islands and Micronesia.

Ms. Traxler also founded the partnership between the U. S. Department of Agriculture and a District of Columbia School, Van Ness Elementary. She recruited over fifty USDA tutors who spent two hours a week helping students at this inner city school with math, science, language arts, computers and other subjects.

She also has led delegations of women in agriculture, authorized by the U. S. Department of Agriculture, to Asia, Europe and South America. In many of these foreign countries, there was a lively interest in Ag in the Classroom because the agricultural industries there were experiencing familiar problems--declining farm populations; lack of understanding about the economic and social impacts of agriculture; and fewer students who looked to agriculture for careers.

She is a native of South Dakota, the daughter of a school teacher and a rancher. She moved with her family to Minnesota and grew up on a farm there. Ms. Traxler is the mother of seven children.

PERCY B. WADDY

Percy Waddy and his family own and operate "Waddy and Colpitts Ltd." which has interests in dairy farming and lumbering. The dairy farm has a fine herd of registered Holstein-Friesian cattle. The farm operated the first bulk milk pick-up truck in New Brunswick, built one of the first herring bone milking parlours, and was the first farm in the Moncton area to artificially inseminate their herd from their own storage tank. The farm was incorporated in 1949 and is located near Salisbury.

Percy served with the Royal Canadian Air Force and flew a tour of operations in Burma, India, and the Ceylon war zone. At the end of the war he held the rank of Squadron Leader and was a Flight Commander with the Royal Air Force. After the war, he was a pilot with Trans Canada Airlines.

Always active within the agricultural community, he has been President of the New Brunswick Holstein Friesian Association and has held various positions with the New Brunswick Milk Marketing Board as Director, Vice-Chairman and Chairman. Percy contributes to community endeavors through his involvement with the Lions Club, Royal Canadian Legion, the Albert County Historical Association, and the Westmorland Institute.

Percy and his wife Jean have four children and four grand children. The home farm is located near Salisbury.

Third National Agriculture in the Classroom Conference
October 1990
Saint John, New Brunswick

North American Overview Panel

What's Going on in the West

by

Joanne R. Lemke
Assistant Manager - Public Relations
Alberta Cattle Commission

How wonderful to be gathered together over the next few days in this beautiful part of our country - to address such an important topic. Thank you to the conference organizers for the very warm welcome. It's my first visit to this region of Canada. I've been looking forward to coming here for months, and am enjoying New Brunswick immensely.

Since arriving, I've had the opportunity to renew old acquaintances and make new ones; I am feeling absolutely electric about ag in the classroom developments since the very first national conference held in London, and the secon conference at Saskatoon.

Let me tell you about **what's going on in the west.**

Starting with **BRITISH COLUMBIA**, I can tell you that the Beef Information Centre has met with a positive response to school materials like the Canada is Cattle Country resource kit and the very excellent video From Pasture to Plate which has been requested by several school resource centers.

As well, teacher workshops have been planned in conjunction with professional days, along with arranging for displays and literature to be set up during such conferences.

The British Columbia AITC Foundation applied to Revenue Canada Taxation for a charity registration number so that contributions made to the Foundation can be used for income tax credits. The Foundation is working towards appointment of an advisory council whose terms of reference include fund raising. A grant from the British Columbia Ministry of Agriculture and Fisheries is allowing the Foundation to proceed with the preparation of a brochure and other materials that will explain the Foundation and its aim of "promoting an awareness and understanding of the agri-food system through the introduction of an AITC program in the school system".

Moving on to home turf, there is so much happening in **ALBERTA**, its tricky to succinctly summarize in a few minutes.

I have been involved since its inception over five years ago with the Classroom Agriculture Program, commonly referred to as CAP.

Ten agricultural organizations work together to plan and coordinate the CAP program which is presented to elementary students during Agriculture Week. The programs CAP has developed include Pasture to Plate, Partners, and Alberta's Land is our Land.

A basic script or outline is developed and provided to volunteers in addition to speaker support materials such as posters. The volunteers go into the classroom for a full period, present the program, and distribute a colorful activity oriented booklet to each student which reinforces the points from the oral presentation. A resource kit is also left with the teacher.

CAP has thus far been presented to over 125,000 students and is a major success story - in large part because of the enthusiasm and ingenuity of the hundreds of volunteers from the agricultural sector across the province.

We encourage volunteers to personalize the script to their own operation and experiences. Some volunteers plan their presentations months ahead of time by collecting and preparing props. You wouldn't believe the stories I could share with you about the carloads of props some volunteers take to the classroom, or the producer who has held a raffle with the prize being a visit to his operation for the student and his or her family - and the list goes on.

Regional workshops are held to brief volunteers in advance of the program. CAP also has a strong evaluation component involving coordinators, volunteers, teachers and the students. This we feel is necessary, and invaluable in planning for 'next year'.

Complementary to CAP, Alberta Agriculture has developed resources and special programs targeted at educators to provide awareness of Alberta's agriculture industry to children and teachers in the Alberta school systems.

The resources available from Alberta ag in the classroom include:

- *Agriculture and Me series*
  three books, containing lessons and resources for K-3 teachers (social studies, science, language arts)

- *Pride in Alberta series*
  three books containing lessons and resources for grades 4-6 teachers (social studies, science, language arts)

- *Space Age Agriculture series*
  two books for lessons and resources for junior high teachers (science and social studies)

- *Business of Agriculture series*
  three books of lessons and resources for senior high school (social studies, science and career courses)

- *new lesson series*
  A new book will be published with our latest activity ideas for elementary teachers this fall.

- *newsletters*
  Alberta teachers receive five newsletters each year containing such resources as enrichment studies ideas, new agricultural ideas, AITC news and resource listings, and teach comments and special activities.

- *posters*
  for classroom displays are available for all grade levels

- *special kits*
  Two soil conservation kits are available to teachers on request.

- *school videos*
  - "A Visit to a Rural Community" - a companion to Agriculture and Me series

    "Alberta a Good Place for Agriculture" - a companion to Pride in Alberta series

  - "Space Age Agriculture" - a companion to the book series of the same name

Special Programs:

- *Farm Tours Register*
  tour tips - a resource for tour hosts
  get-ready-go activities for teachers
  Program will be updated regularly.

- *Adopt-a-Classroom*
  pen-pal sharing between elementary classrooms and 4-H members, ag college students or farmers
  Program will be updated regularly.

- *Summer Agricultural Institute*
  A 12 day full credit senior level course offered by the University of Lethbridge. Funded by United Farmers of Alberta Cooperative and hosted by Lethbridge Community College and jointly coordinated with Alberta Agriculture in the Classroom Program.

- *Agriculture ambassadors program* is a new concept that is currently being reviewed and may be implemented as early as this fall.

- *Teacher workshops* are available on request to staff members and at special events such as professional development days and conventions.

And, the major exhibition interests - Calgary's Aggie Days, Edmonton Coop and Corral to Regina's Agribition - are running special programs where urban elementary classes can visit what I would describe as major ag in the classroom trade shows where in some cases, giant exhibition halls are filled with almost everything imaginative from live animals to seeing how butter is churned to presentations about how agriculture is environmentally friendly.

Entities like Edmonton Northlands do a heck of a job with these programs to the extent where they're repeat events held on an annual basis.

I am pleased to report that all interests from Alberta, enthused and committed to ag in the classroom, are meeting regularly and moving towards finalizing the establishment of an ag education network which will act as a clearing house.

My thanks to Debbie Karbonik - Redmond of Ag Insight for information
about all of the exciting programs in...**SASKATCHEWAN.**

Video

Work on a half hour agricultural video continues. The video documents the factors involved in Saskatchewan's agriculture industry. The video and print material being developed with Saskatchewan Education create an agricultural education package [illegible] be included in the grades seven and eight science curricula.

Resources

Work is progressing well on a resource binder for teachers. The binder holds annotated bibliographies of educational resources produced by the agriculture industry. Ag Insight plans to place the binder in school libraries this fall.

Debbie says that Ag Insight's resource room is also growing thanks to generous contributions from their members and other industry organizations.

Summer Workshop

Ag Insight piloted a workshop for teachers this summer. The workshop's goal was to create an interest, understanding, and appreciation for the issues with which producers deal on a daily basis.

The workshop consisted of a two night stay on a farm and informal information sessions involving representatives from the agriculture industry. Participants must be actively involved in the education system (at any level) and have no agricultural experience. Information learned at the workshop will help teachers incorporate agriculture into school classrooms.

Grain Kits

Ag Insight and CN Rail are working together to place CN Rail's "Grains and Seeds in Canadian Agriculture" grain kit in Saskatchewan's elementary schools. The kit is a large card containing seed samples of crops grown in Canada. The booklet "Canadian Agriculture From Sea to Sea" accompanies the kit.

Ag Insight is developing a teacher's guide with activities suitable for grades four and five social studies, science and mathematics.

The package is expected to be distributed to schools this fall.

Survey

Ag Insight's survey of Saskatchewan non-farm residents was completed over the winter. The survey was conducted to better understand how urban people view the agriculture sector.

Several interesting and important points arose from the survey. One important finding was that about 95 per cent of the people polled think agricultural topics should be taught in school.

Ag Insight will use the information for the survey to develop education and awareness programs.

Future Projects

Ag Insight is also considering several other education oriented projects. These include a classroom project similar to Alberta's Classroom Agriculture Program, a magazine insert for grade six students, and a book project that places books with agricultural themes in school libraries.

No completion date has been established for these projects.

On to **MANITOBA**, and here my gratitude goes to Lee Anne Murphy from Manitoba Agriculture in the Classroom for the thorough update about efforts in that province.

The AITC effort in Manitoba is a broad based effort, including farmers, agribusiness and the provincial government.

The MAITC office has been collecting resource information from across Canada for use by teachers. Copies of written materials and loan of audio visual material is available from that office. Upon reviewing the resource list, I've got to tell you that MAITC has a wealth of goodies - a host of resource kits, survey maps for high school students, agriculture in Manitoba's history magazines and more!

The approach MAITC has taken is to target specific areas of the existing school curriculum and work with those sections by providing resource material and volunteer speakers. For 1990, MAITC focused efforts on:

- *Grade 11 "Agriculture-A Cornerstone Industry"*

Currently in the pilot development stage, MAITC has been involved with the advisory committee. Further activities will involve the provision of existing resource material, assistance of the speakers bureau and coordinating the involvement of the ag industry with the practicum or "hands-on" component.

- *Grade 5 Social Studies "Life in Canada Today"*

Focus will be on Unit II, "The Prairies", particularly as it involves the typical events in the daily life of agriculture. MAITC will review the recommended resources and will work with the ag industry to update the information to more accurately represent a view of the present technology of farming. The committee will also work with an education consultant to develop a variety of active learning activities to complement the unit.

- *Grade 4 Science "Water and Land"*

Committee activities will include the development of conservation activities that will allow children to recognize the important role that agriculture plays in the conservation of water and land.

A major function of MAITC is to assist educators with the teaching of agriculture-related materials. In 1990, MAITC will:

- participate in professional development activities
- investigate participation in MINet Bulletin Board that allows the use of a computer link to distribute current information about agriculture to schools
- produce and distribute resource binders to all school divisions
- explore the potential of a summer session for educators in 1991.

A critical component of MAITC is the volunteer speakers bureau, composed of people knowledgeable about the agriculture industry in Manitoba. In 1990, the focus of the speakers bureau will be on the *Grade 5 Social Studies Unit, "Life in Canada Today"* and will offer speakers on the topic *"Daily Life in Agriculture"*, involving producers as well as agriculture industry personnel.

The development of a program for Manitoba will culminate in training workshops for the volunteer speakers in the fall of 1990 that will explain how to use the material, as well as how to incorporate their own life experiences in their presentations.

A look at other programs around Manitoba.

"Taking Agriculture to the Classroom" is a program administered by the Pembina-Manitou Weed District. The purpose of the program is to develop an awareness in grades seven and eight of the value of protecting our valuable land resource for future generations, and to provide information on food production and the need for integrated options in pest management.

Information is provided to the student through slide talks, tapes, talks on the environment, soils, pesticides, safety essay and poster competition and field tours.

I would be remiss if I didn't briefly comment about how COLLEGES and UNIVERSITIES in western Canada are getting involved. Our colleges and universities are attempting to raise the profile of agriculture and make it seem like an attractive career choice.

Lakeland College at Vermilion in northern Alberta is concerned about the lack of interest that high school students show for agriculture careers, even though their career placements for agriculture education is high. In what I consider to be a very proactive measure, Lakeland College recently conducted a study of high school students attitudes about a career in agriculture. Imagine how some of the urban high school students responded to the question "what does a farmer look like to you?" The point though is that our education institutions are getting involved and they're planning for the future. They're recognizing the need to provide specialized education for all areas of agriculture; they're recognizing the need to bring instruction to the students; they're capitalizing on computer, audio and video technologies to make ag education available to more people; and they're becoming valued participants in our provincial ag in the classroom organizations.

Mr. Chairman, I expect that I have exceeded my time. And I expect and regret that I have probably omitted to mention some AITC things going on in the west; there is just so much happening, (reminds me of fireworks; something is going off all the time). I urge you to meet the westerners here and obtain more detail than what I've been able to provide about their respective programs. We'd be delighted.

N.B. These comments were prepared in July, and I may change some comments during my oral presentation to include developments that may have occurred.

Joyce Canning

Overview of Ontario AITC Program
for National AITC Conference
Saint John, N.B., October 14-16, 1990

Ontario has had an AITC program since 1984. It has developed as a result of efforts from the farm community and the Ontario Ministry of Agriculture and Food (OMAF).

There are presently five paid staff employed by OMAF - an education specialist who is the overall coordinator of the program, three regional teacher consultants and one provincial bilingual consultant. The consultants work with volunteer committees to assist in local activity, with agri business to assist in resource development and with educators to provide training and increase awareness.

Over the past six years funding for the administration of the program has been provided by OMAF. Resource development has been undertaken by OMAF, commodity boards, agri business and volunteers.

Middlesex County established an umbrella organization called the Association for Food and Agricultural Awareness (AFAA) in 1986 which could be used as a model by others. It includes representation from the various farm groups in the county on its Board of Directors. AFAA has received charitable status and has been responsible for coordinating several successful programs related to AITC and general ag-awareness.

In April 1989 an AITC Implementation Committee was set up with the mission of establishing a future structure for the management and funding of the AITC program. It was also to address the areas of communications, professional development and development of learning resources materials. While the first goal has not yet been finalized there have been accomplishments in the other areas. We now have an AITC logo for Ontario (see top of page), an AITC promotional video, AITC logo lapel pins, the first Summer Institute for 34 teachers was held at the University of Guelph in August, a series of regional conferences are being planned - the first to be held in Cornwall for Eastern Ontario October 26 and 27. Another significant gain from this committee has been an increased level of awareness and support from the Ministry of Education.

Ontario was responsible for hosting the first National AITC Conference in London in April 1987. The planning committee (WSA volunteers) subsequently formed a business, AITC Associates, and developed and distributed the first two issues of the National newsletter - CONNECTIONS. They have also provided guidance and encouragement to other provinces to establish an AITC program.

Professional Development Initiatives

In service workshops for teachers have been held continuously since 1984. They are coordinated and delivered by both the AITC Consultants and volunteer committees at the local level: In 1989-90 student teachers were workshopped through the various faculties of education. Increased emphasis will continue to be put on this area. Workshops for volunteers were also held in 1989-90 and this support will be continued.

Resources Available

OMAF

- Catalogue of Agricultural Teaching Resources.
- Audio-visual catalogue listing films, videos, slides available on a loan basis.
- A variety of print and audio-visual resources from the primary to high school level.
- **Update**, a biannual newsletter for teachers and AITC supporters.
- Ontario Agricultural Museum in Milton offers school tours and programs from April - November each year.
- two of the Agricultural Colleges (Ridgetown and Centralia) offer Ag Venture programs for specific grade levels. They use either a 1/2 day tour or day camp format.

Other Sources

- Commodity Boards such as Milk, Egg, Pork, Chicken provide education kits, and the Milk Board provides teacher workshops as well.
- Agri businesses such as Pioneer HiBred, Crop Protection Institute, Fertilizer Institute and Federation of Naturalists have developed teacher kits and booklets.
- Volunteers have developed resources and programs such as:

Fairfield Family Hayride Puppets - includes patterns and directions for making puppets and an audio cassette.

F.A.R.M. Kit - thirteen 1/16 scale replicas of farm machinery with teacher's manual and activity cards.

Dairy Days - a program for elementary grades organized by county milk committees in various areas.

Farm Friends - a program to improve communication between the farming community and their rural and urban neighbours.

Farm Tours - provided by farmers in all parts of the province for both students and teachers.

For further information contact -

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AGRICULTURE IN THE CLASSROOM IN QUÉBEC

JACQUES BOUCHER

Besides meeting a large part of the province's food requirements, the Québec agriculture industry constitutes an important economic activity. The some 41,000 farms generate revenues of several hundred million dollars each year and create close to one hundred thousand permanent direct and indirect jobs.

Agriculture is also a dynamic sector that is on the leading edge of technology and must face the challenge of international competition on a daily basis. Unfortunately, many Québecers, particularly young people, are still unaware of these realities. They often don't know where the food they eat comes from or how much effort is involved in producing it.

This lack of awareness of agriculture accounts in part for the manpower replacement problems and the drops in student enrolment in secondary schools and colleges specialized in agriculture. On the whole, the situation in Québec is similar to that found throughout Canada.

Let's look now at the main elementary and secondary school projects realized by Québec organizations active in the agricultural sector.

1. Elementary Schools

* The Fédération des producteurs de lait du Québec (Québec Milk Producers Federation) has prepared manuals (teacher's guide and student workbook) for each elementary grade. These tools are designed to teach children about healthy eating habits and also explain the origins of the main foods we eat. This material is used widely throughout the province.

* The Québec Department of Agriculture, Fisheries and Food is currently preparing an instructional guide for a visit to a dairy farm and a series of six videocassettes (1 for each elementary grade) on agriculture in Québec. This material will soon be distributed to every school in Québec. Over the next two years, the Department also plans to organize a course for elementary school teachers, in cooperation with the universities.

The school timetables are very full (French, mathematics, science, social studies, religion, music, physical education). It's the school as catch-all! As a result, we must not add to the existing programs but rather support the teachers in their tasks.

In Québec, several other organizations and groups (e.g., telephone company, automobile insurance board, environmental protection association) wish, for various reasons, to reach elementary school students. In addition, Québec has some very dynamic publishers of instructional material. Consequently, it takes ingenuity to compete when it comes to preparing instructional tools and supplying training activities.

2. Secondary Schools

* Each year, the Québec Rural Youth Association organizes a province-wide science fair for secondary school and college students. Its theme is the use of technology in the bio-food sector. Each five-member team prepares an exhibit (e.g., soilless culture of greenhouse tomatoes) that is presented to the public during a weekend.

* The agri-food technology institutes organize an annual contest for young people, similar to Reach for the Top. Teams from Québec secondary schools compete against one another for top honours in this quiz on agriculture.

* The Québec Department of Agriculture, Fisheries and Food prepared and recently distributed an instructional kit to all Québec secondary schools. This kit, designed to assist Secondary III geography teachers (Grade 9), includes ten learning sheets, a video, a series of slides, maps, etc. Information sessions and farm visits have been organized for these geography teachers.

* The Department of Agriculture, Fisheries and Food prepared written documents and a video for those in charge of career information in the schools. Information sessions were also organized as part of career seminars.

* The Department of Agriculture, Fisheries and Food plans to prepare reference documents for the high school Economics course and a seed kit for the Biology course.

It should be noted that Québec does not have a provincial committee on agriculture in the classroom that would bring together representatives of private- and public-sector organizations. We believe it would be advisable to set up such a committee in order to better coordinate the various efforts and initiate joint projects (e.g., establishment of a team of educational consultants to assist the schools and farms in their projects).

In conclusion, we believe it is important to become involved in agricultural activities in the classroom so that students better understand the role and importance of agriculture. This will enable young people to make informed decisions in the future. We also hope this will make it possible to interest more young people in a carrer in the bio-food sector.

Jacques Boucher
Agriculturist

AGRICULTURE IN THE CLASSROOM

AN ATLANTIC OVERVIEW

SUSAN HORNE

Each of the four Atlantic Provinces is know for its diversity in scenery, culture, and history. Agriculture in these provinces varied as well and so is how we approach Agriculture Awareness and Agriculture In The Classroom programs. Although we may not have been formally carrying our specific programs for as long as the United States or other provinces in Canada, I believe there are some exciting things happening that I want to share with you.

In Prince Edward Island the basis for agricultural Awareness in the school system is centred around a Maritime Studies Course at the Junior High level. This project was developed by the Maritime Farmers' Council and is available to the Maritime schools.

The course material is based on primary industries such as agriculture and its economic importance. It is compulsory here. At the Senior High level, agricultural courses are optional, and while available at all the high schools in the Province, limited enrolments have resulted in courses not being offered in some schools.

In addition, there are other non-course activities in place to promote Agriculture In The Classroom. Some branches of the Women in Support of Agriculture have organized and promoted tours of farms by elementary school classes. Women's Institutes have also had programs such as From Farm To Table.

Last year a one-day information session on agriculture in P.E.I. for 40 high school science and agriculture teachers and guidance counsellors was provided by the Federation of Agriculture, P.E.I., Department of Agriculture and P.E.I. Institute of Agrologists. The purpose was to provide teachers with information on the industry that they could incorporate into their classroom material or use for career guidance.

In the past, the University of P.E.I. and Holland College have been involved in providing courses in agriculture for the teachers.

In New Brunswick, one of their activities has been to host this conference. The New Brunswick Department of Agriculture has a person assigned Agriculture In The Classroom as part of her/his job responsibility.

Last year an Agricultural Awareness Week was organized. At that time a Resource Guide was distributed. The Guide lists the purpose of Agriculture Awareness and outlines how to plan a farm tour for students and a list of farmers. Lots of farmers showed an interest in the farm tour project and have signed up to host tours.

Other contacts were included such as commodity groups or government agencies along with videos that are available on loan.

A special poster with "Agriculture - The Roots of Our Existence" was given to schools.

In grades 11 and 12, there is a one semester credit course in Agriculture offered by the Department of Education and is offered in only two schools.

A Maritime Study Course that is compulsory in Grade 10 includes a unit on agriculture with the slant being on the economic importance of agriculture.

Farm organizations are active in visiting schools and offering tours to their facilities. The Farm Women's Organizations are very keen in this area.

The Department is in the process of developing 30 lesson plans for grade 1-6. There are approximately four to six plans per grade level. The lesson plans have to be approved by the Department of Education. The Department of Education have reviewed the lesson plans for grades 1-3 and will have them ready for the fall.

In Newfoundland, they are currently undergoing some shift in how Agriculture Awareness activities are co-ordinated.

The Advisory Committee on Educational Programs was formed in 1980. They developed a Grade 5 Social Studies program, a 17 minute video along with an activity package on Newfoundland Agriculture. This was distributed to all the 400 schools. Along with that a brochure on Agriculture in Newfoundland was developed.

This committee will be replaced by an Agricultural Awareness Committee and will have industry representatives along the Department's information officer. The mandate will be broader than the Agriculture in the Classroom.

Just recently under the Federal/Provincial funding agreement, plans are under way to develop a 15-20 minute video on a visit to the Food and Livestock Show. This will take the show to children who cannot get there or will be used as a teaching tool to prepare students to attend the show. A five to seven minute version will be used for promotion and general agricultural awareness.

Both commodity boards and farm women's groups have special agricultural awareness projects.

There is also the possibility of a certificate program for teachers through the Avalon Community College.

In Nova Scotia, the Agricultural Awareness Committee acts as a steering Committee to coordinate activities, farm tours, the Maritime studies are under way like the other provinces. With our tour guide we plan to develop an orientation program for farmers "being an effective tour guide".

We lacked good basic facts and information in an easily understood format that teachers could use. Now we have produced a brochure on Nova Scotia Agri-Food Industry as well as twelve fact sheets on many of the commodities. This will be followed by a fact sheet on agriculture in each county (to be released soon).

Our major undertaking for the last two years has been a special feature at the Atlantic Winter Fair. Last year 6,200 children visited our Farming Is Awesome exhibit at the fair. This year the program was aimed at primary - Grade 3. We had ten activity centres where the children learned special agriculture songs, named a calf, learned about wool production, as examples. Along with that the commodities took the children food displays and played Agricultural Trivia with them.

In the Dairy Barn we had a display that told the milk story and how safe-high-quality milk is produced for them.

At the Cape Breton Exhibition, a great puppet show detailing the dilemma between a land developer and a farmer created lots of enthusiasm. A McDonald's land farm was also developed. The exhibit features the agricultural products McDonald's use at their restaurants.

The Nova Scotia Agricultural College has been active in science teacher summer school, Fast Plant research for example.

In Nova Scotia we feel there is no end to the kinds of activities we want to do but there is a limit to what we can get done - money and time - but most importantly our committee wrestled with how do you know what kind of an impact we are making? Are we talking about Agriculture that is meaningful to the public? Are we doing programs and the public still maintaining the same degree of scepticism? If we talk about agriculture, but fail to talk in a way that is meaningful to tem, can we achieve success?

Along with that, the industry wants to know what we are doing to help them. They are demanding more agricultural awareness programs because they perceive it will reduce public criticism and solve their problems.

Our committee agreed that if we focus our programs and measured results in terms of addressing the public's concerns about agriculture and demonstrate to them how the industry takes their concerns and makes changes, we could make a difference with this issue related approach. The day is gone where the public will accept the "everything is perfect in agriculture" and we wait for them to change and accept what we are doing. Our committee feels there is a middle ground. If we can show and tell, we think they will move, and that's what we'll be able to measure.

Through the process we identified that issues in agriculture that the public is concerned about and what they believe about agriculture in relationship to the issues and we priorized them. Issues such as food safety, use of pesticides, cost of food and food quality as examples.

We will be developing background materials which will state where the industry is and what it is currently doing in relationship to these issues followed by the department and industry position on the various issues. A mammoth project, not unsurmountable but definitely a challenge. The document, however, will provide us with our direction, an issues related approach, and the area(s) that we can measure success, so we can be accountable and we will be able to say: "Yes, Agricultural Awareness can make a difference".

NORTH AMERICAN OVERVIEW OF AG IN THE CLASSROOM

UNITED STATES OVERVIEW

SHIRLEY TRAXLER

Ag in the Classroom in the United States is a grass roots program which aims to build agricultural awareness among our students from kindergarten through high school and beyond.

The greatest need for this education is among students in urban areas who might not make the connection between the food they eat and the farms where it is grown.

The network is composed of people in education, agriculture, and government working together at the state, local and national levels to develop plans and put them into action to achieve agricultural literacy.

It is important to give our children enough information about agriculture so that as they grow they can make wise decisions--as consumers, voters, elected officials--decisions that affect our nation's largest industry, agriculture.

The U. S. Department of Agriculture coordinates this effort. We provide some material and a bi-monthly national newsletter. We encourage our agencies to get involved at the state and local levels, and we work closely with national organizations to assure their support and involvement. Members of these national organizations provide a pool of willing volunteers to help carry out programs.

There are five basic aspects of state programs. They are: organization, materials development, teacher training, fund raising, and outreach or public relations.

A good organization includes a wide variety of representations from the public and private sectors--government, education, agriculture. Financial resources, school curriculum, and human resources determine the extent of a state's activities.

Many state organizations have offices and full or part time staff. However, some states operate very successfully with a total volunteer effort. The Farm Bureaus, with organizations in almost every county in every state, provide Ag in the Classroom leadership in seventeen of the fifty states. Leadership also comes from state departments of agriculture and education, universities and colleges, educational foundations and private individuals. But it's everyone, setting aside personal or organization agendas, working together, that makes Ag in the Classroom succeed.

Several states have formed regional groupings which meet once or twice a year to share ideas and materials--and the New England/New

York Consortium is developing regional materials and plans to carry out teacher trainers' workshops.

Initially, most states concentrate efforts at one grade level and, as resources permit, expand to other grades with the ultimate goal of reaching all students.

Instructional materials come in many forms from three ring binders filled with student activities to computer programs. One national K-12 curriculum has been developed in cooperation with the Council of Economic Education. It is called, "Teaching the Economics of the Food and Fiber System". Another effort which is now under way is "Project Food, Land and People". This will be a K-12 set of materials designed for integration into the subjects being taught and will help students understand the relationship of food, the land and people.

Teacher training is accomplished through workshops, inservice instruction, and summer agricultural institutes. Many states grant scholarships and provide continuing education credits for participating teachers. Teachers who become involved in Ag in the Classroom are its most enthusiastic supporters.

Activities are not limited to the traditional classroom. State, county and local fairs provide fertile ground for Ag in the Classroom outreach. Farms, ranches and higher education campuses make exciting learning laboratories for students and teachers alike.

Funding comes from a wide variety of sources including legislative appropriation, membership dues, industry and private donations and grants. Funding is frequently the most difficult challenge.

Ag in the Classroom in the United States has reached over a million students, thousands of teachers, and enjoys positive community reaction.

We are privileged to work with you--to share our ideas and approaches--and to learn from you--so that we can all do a better job of educating our nations' young people about agriculture.

THE ROLE OF AGRIBUSINESS

GARY GRIFFITH

There is probably little doubt that the general public is lacking in knowledge concerning agriculture. There is also little doubt that to better educate the public requires a concerted effort from everyone involved in agriculture.

It should be noted that any comments, ideas and materials presented by John Deere at this conference, express the viewpoints of John Deere Limited only and not agribusiness in general . John Deere is a leading manufacturer of agricultural machines, construction equipment and consumer products and distributes its products world wide.

Deere, like many companies, is involved in continuous training of not only its own employees but also dealership personnel and retail customers. The majority of the training is done in-house and is carried out by our own training department. The amount of training required by John Deere employees varies from very little for entry level positions to extensive for individuals involved with more technical areas such as service managers who on top of a university degree in engineering, would complete several weeks of additional training per year.

Another major thrust of the training is aimed at our dealer organization that sells and services our products. Since they are dealing directly with retail customers it is very important that they possess the necessary knowledge and skills to adequately serve the customers.

The training at this level is in all forms: written material, manuals and publications, video tapes, seminars and schools. The amount of training provided varies according to the need in each area.

Most of the training and information sessions for the retail customer are a joint effort between the company and our dealers. Much of the training is product oriented but also branches out to include such topics as servicing and maintaining equipment, farm safety and new innovations in farming.

Most of our involvement in outside education has been at the community college and agricultural school level. Many of these institutions across the country have taken advantage of our training material such as fundamentals of service manuals (FOS), Fundamentals of machine operation manuals (FMO), operators manuals, technical manuals and various machine components as available.

We have recently entered into an exciting program with Kelsey Institute in Saskatoon, Saskatchewan and developed the John Deere Ag Tech Program. This is a joint effort between Kelsey Institute, John Deere and John Deere dealers to provide a two year agricultural mechanics program designed to upgrade the technical competence and professional level of the incoming dealership technicians. The students attending this program will be sponsored by John Deere dealers and will train on John Deere equipment which will be very beneficial when they return to the dealership for full time employment.

One of the most difficult tasks of any farm machinery dealer is to find competent, and well trained personnel to work in the dealership. That is why all manufacturers must strive to develop programs such as the John Deere Ag Tech Program at Kelsey Institute.

It is fairly obvious that a better educated consumer would help virtually all aspects of agriculture . The role that each sector of agriculture plays will depend to a large extent on where its interest lie and what are determined to be its main areas of involvement.

GOING AFTER THE FUNDS

DON McLEAN

I Begin at the Beginning

1. The Organization (name)
   - (a) Purpose or goal of the organization
   - (b) Rational (raison d'être)
   - (c) Objectives

2. Specific Funding Purpose(s)
   - (a) Seed money (start up funds)
   - (b) Development funds (to get thing going)
   - (c) Operational funds (for the long pull)

II Funding Metamorphosis

1. Initial Reaction
   - (a) How much money is required?
   - (b) Where will it come from?
   - (c) How will we get it?

2. The Fears
   - (a) Is the money out there?
   - (b) Why should donors give support?
   - (c) Who are the donor prospects?
   - (d) Who will go after the funds?
   - (e) How will we go after the funds?

3. The Program
   - (a) Condition the market (P. R. Program)
     - i) pamphlets
     - ii) news releases
     - iii) letters to decision makers
     - iv) speaker list
   - (b) Identify the prospects
     - i) individuals
     - ii) corporations
     - iii) other Foundations/Associations
     - iv) Governments
   - (c) Contacting the prospects
     - i) volunteers
     - ii) professionals
     - iii) the campaign pyramid
   - (d) Making the contact
     - i) mailing lists
     - ii) advertising
     - iii) telephone interviews
     - iv) personal interviews
   - (e) The presentation
     - i) the right person
     - ii) personal commitment
     - iii) identify the benefits
     - iv) specific request
     - v) ask for the order
     - vi) and if at first, you don't succeed........

III **Follow Up**

1. Immediate
    - (a) Thank the donor
    - (b) Inform the donor
    - (c) Recognize the donor

2. Broaden the Base
    - (a) Additional sponsors
    - (b) Newsletter
    - (c) Ask for continued support

TEACHING KIDS ON THE FARM

Megan Camp

Background:

The mission of Shelburne Farms is to preserve, maintain and adapt its historic buildings, landscape and productive farmland for teaching and demonstrating the stewardship of natural and agricultural resources.

Educational and agricultural programs are conducted in the belief that the quality of our environment depends on the wise use of natural resources and a healthy agricultural base.

The goals of Shelburne Farms are:--

- To teach about the stewardship of natural and agricultural resources through educational programs for elementary school children and teachers.
- To demonstrate the stewardship of natural and agricultural resources through long-term land use planning, sustainable agriculture and forestry, and landscape restoration.
- To provide public access to Shelburne Farms for educational uses and for the enjoyment and appreciation of the rural environment.

Education programs are conducted through the Stewardship Institute at Shelburne Farms which offers school field trips for Vermont children, training in hands-on science for teachers throughout the Northeast, and PROJECT SEASONS, an elementary science curriculum. The Stewardship Institute has targeted the age of the elementary school child because it is the time when a child first begins developing his or her conservation ethic.

The entire Shelburne Farms property, including its farm and forestry operations, serves as a living laboratory for these education programs. Teacher training is conducted both at the Farms and at schools and professional conferences in the Northeast.

The goal of the Stewardship Institute is to develop scientifically literate citizens who understand the principle of stewardship - the wise use of our natural and agricultural resources - and who are able to use this knowledge in their everyday decision making. A recent study sponsored by the National Science Foundation found that only 6% of American adults have an understanding of basic science concepts which are a prerequisite to an understanding of stewardship. Improving science and environmental literacy is essential to prepare future generations for the difficult resource choices that lie ahead.

Field Trips: "Kids on the Farm"

The field trip program at Shelburne Farms offers a unique experience for children to nurture their natural curiosity, helping them to question and to seek answers. Children participate in seasonal activities on the farm and investigate the world around them using a hands-on approach.

The field trip program helps children understand their dependence on the sun, soil, air and water and discover the origins of their food and fibre. They explore the world below their feet in soil investigations, trek to a river and find out about the source of their drinking water. They discover the sights and sounds of the harvest through grinding grain and visiting the bakery. They visit the dairy to milk a cow, churn butter and make ice cream and cheese. They tap maples, gather sap and sugar off in our sugarhouse. Seasonal field trip themes include: **The Harvest**, **Farm Life and History**, **Forest Resources and Animals in Winter**, **Maple Sugaring**, **Dairy**, **Super Soil**, **and Watery Worlds**. (see attached)

The field trip program at Shelburne Farms is an important part of the curriculum for many Vermont teachers. Currently 5,000 Vermont school children participate in the program. Demand is currently three times what can be met.

The presentation will review the field trip program for elementary schools and highlight various innovative hands-on teaching techniques used in the program.

FALL ON THE FARM

The Harvest:

Discover the sights, sounds and smells of the harvest with a bounty of seed activities. Grind corn, follow a wheat seed through the bakery, make a wild seed collection and press apples into cider on this fall adventure. (Recommended for kindergarten through third grade; 2 classes or 40 students maximum. Available September - November.)

Farm Life and History:

Step back in time to explore the tools, crafts, and chores of the self-reliant farmer. Making candles, carding and spinning wool, and tending the animals make this a realistic way to experience life on the farm. (Recommended for third through sixth grade; 2 classes or 40 students maximum. Available October - December.)

Super Soil:

Believe it or not, creatures from another planet introduce your class to the world beneath their feet and start them on a hands-on scientific investigation of soil. Creative presentations, conservation activities and fun complete the day. (Recommended for third through sixth grade; 1 class or 25 students maximum. Available September & October, May & June.)

WINTER IN THE WOODS

Forest Resources:

As leaves are falling, revealing silhouettes and winter buds, it's a perfect time to learn about an important Vermont resource - our forests. A woodland hike will introduce students to wood as a resource, forest habitats, the basics of tree identification, tree life cycles, anatomy, and the chance to become a "Twigger of America". (Recommended for third through sixth grade; 2 classes or 40 students maximum. Available mid October - December.)

Winter Tracking:

Our Sherlock Holmes School for Track Detectives can turn your class onto the world of animals in winter. Indoor sleuthing activities prepare students for a trek on snowshoes in search of animal signs and tracks. (Recommended for kindergarten through third grade; 1 class or 25 students maximum. Available January & February.)

Shelburne Farms Field Trips

SPRING TO LIFE

Maple Sugaring:

Those warm days and cold nights start the sap moving in maple trees all over Vermont. Discover what makes the sap run, tap a tree and help fire up the evaporator in our sugarhouse as you go back in time to trace the history of maple sugaring. (Recommended for kindergarten through third grade; 2 classes or 40 students maximum. Available March - early April.)

The Dairy:

The birth of new calves, cows ready to milk and cheese being made all make for an exciting trip to the dairy. Students will enjoy meeting the calves, heifers and cows up close and making some of their own dairy products to taste. (Recommended for kindergarten through sixth grade; 1 class or 25 students maximum. Available April - June.)

Spring Discovery:

The woods and farm are bursting with life! Birds are calling, the garden is being planted, and wildflowers are blooming. Through observation, dramatics and hands-on activities in the woods and garden, students will discover the wonders of spring. (Recommended for kindergarten through third grade; 2 classes or 40 students maximum. Available May & June.)

Water, Water Everywhere:

A morning exploration of the nearby LaPlatte River will introduce your class to the water cycle, riparian habitats and aquatic plants and animals. Afternoon conservation activities build on their water awareness and appreciation while they begin to develop and question wise water use. (Recommended for third through sixth grade; 1 class or 25 students maximum. Available May & June.)

PROGRAM INFORMATION

Our programs are available for Grades Kindergarten - six and are adaptable to fit the particular needs of your class. Field trips run from 9:30 a.m. to 1:00 p.m., although we can be flexible to meet school schedules. The cost is $2.50 per student with teachers and adult chaperons free. Supplemental classroom activities will be sent to prepare your students for their visit and to provide important follow-up.

For further information, or to schedule a field trip, please call:

Field Trip Co-ordinator at 985-3222.

INTEGRATION OF AGRICULTURE INTO A SCHOOL CURRICULUM

KAREN MacDONALD - SASKATCHEWAN DEPARTMENT OF EDUCATION

VANESSA HEADFORD - PUBLIC RELATIONS CO-ORDINATOR, CANADIAN WESTERN AGRIBITION SASKATCHEWAN

The session will begin with a summary of the process adopted by Saskatchewan Education for the integration of agriculture in school curricula. An example of industry cooperation of the Canadian Western Agribition will be presented. The presenters will offer a brief summary of the needs of education and industry.

It is anticipated that the session will be informative and will have opportunities for participants interaction.

OBJECTIVES

The objectives of this session will be to:

(1) To identify the process of integration of agriculture into a school curriculum.

(2) To show an industry/education example of integration of agriculture into the education system.

(3) To provide participants with the opportunity to ask questions of education and industry about their respective roles in agricultural education.

BACKGROUND

The following discussion is presented from the perspective of Saskatchewan Education and has been developed to mesh with our own educational policies, initiatives and programs. However, much of the rationale and many of the strategies will be applicable to other situations.

We are proud of our achievements of increasing the agricultural literacy of students in this province. Saskatchewan Education is currently undergoing curriculum revisions and developing new dimensions of instruction and learning strategies. The agriculture project is timely in that it takes advantage of the opportunities presented by on-going curriculum development. Examples of this integration can be seen in the new elementary Science curriculum. Pilot curricula in Social Studies, History, Mathematics, Biology, Chemistry and middle level Science show further examples of integration. Business Education at the Grade 11 and 12 levels will have an optional module on Farm Accounting.

The success of this project is directly attributable to a few highly critical factors. These are:

(1) The philosophical commitment of the education system.

(2) Each issue or topic must have sound educational value.

(3) The integrity of each curriculum must never be jeopardized.

(4) Creativity and commitment of industry.

(5) Development of inservice and teacher training programs.

INTEGRATION PROCESS

The integration of agriculture into existing and developing school curricula in Saskatchewan began with the establishment of a reference committee comprised of representives of industry, education, universities and Saskatchewan Education. Definitions, goals and objectives were established by the committee and the consultant. The potential for or existing opportunities for incorporation of agricultural topics into existing or developing curricula was identified. The consultant assists other curriculum developer/writers with appropriateness and accuracy of agricultural information, materials evaluation and sources of resources.

INDUSTRY COOPERATION

Saskatchewan Education's agriculture project relies heavily on industry cooperation. Education programs have been developed in cooperation with such organizations and agencies as the Prairie Farm Rehabilitation Administration, Agriculture Canada, the Soil Conservation Association, the Ag Insight Foundation, Saskatchewan Parks and Recreation, Saskatchewan Agriculture and Food, the Canadian Western Agribition and others.

CANADIAN WESTERN AGRIBITION - AN INDUSTRY EXAMPLE

The Agri-Ed Showcase at the Canadian Western Agribition is an example of industry cooperation at its best. Begun in 1987 from industry initiatives the program has expanded and evolved to the extent that education is recognized by the Canadian Western Agribition as one of its' four philosophical pillars for future directions.

Elements of the Showcase include a Teacher's Resource Package, on-site tours and teacher workshops, a fun auction and the "Agri-Ed Daily". The theme for 1990 is "Agriculture and the Environment".

INTEGRATION OF AGRICULTURE INTO THE SCHOOL CURRICULUM

JACQUES BOUCHER

Our elementary and high school curricula are very full, and teachers are usually reluctant to involve themselves and their students in educational activities that are not part of the regular programs.

Therefore, representatives of the agricultural community who want young people to learn more about agriculture in school must suggest activities or provide material that will help teachers do their job.

How can this be done? As a matter of fact, some basic concepts taught in courses such as biology, geography, mathematics, etc., can be explained by using examples from agriculture. As a result, these courses may even become more attractive and fascinating to students and make the teacher's job easier.

Starting with concrete examples (an educational kit for high school students and a farm visit for elementary pupils), let's see how we can develop educational material and activities related to agriculture that can be included in the school curriculum.

AGRICULTURE IN THE CLASSROOM

LES ASSELSTINE/ROGER BOYD

The teacher's role is to help students to strengthen and deepen their reasoning abilities and to become self-motivated, independent learners and active, concerned participants in society.

The Ministry of Agriculture and Food in keeping with this vision has produced resources which gives students an opportunity to:

- appreciate the variety, quality and availability of food.
- become confident as knowledgeable and critical consumers.
- make responsible decisions to ensure a continuing and bountiful food supply for the community.
- obtain, interpret and respond critically to information while making applications to real life.
- develop an understanding and respect for others by exposure to various points of view and ways of life.
- discover the global relationship between the environment, agriculture and energy.

This workshop will provide an opportunity to become familiar with the activities used to encourage students to explore the rural community, ask questions, generate ideas, evaluate, and create.

AGRICULTURE IN THE CLASSROOM CONFERENCE

"GROWING OUR FUTURE"

SAINT JOHN, NEW BRUNSWICK

OCTOBER 13-16, 1990

PLANNING TEACHER TRAINING

SUZANNE LEITCH
AITC ASSOCIATES INC.
R.R. 2 Thorndale,
Ontario N0M2P0
(519) 461-0767

AGRICULTURE IN THE CLASSROOM
"GROWING OUR FUTURE"
OCTOBER 15, 1990

PLANNING TEACHER TRAINING

1. SUCCESS STORIES-"Eye opening, inspirational, informative! A wonderful opportunity to open the eyes of educators to the importance of agriculture and to the educational direction this knowledge can be taken." One teacher's opinion of Teacher Training Institutes.

2. M & M's of TEACHER TRAINING

A) MOTIVATION - "dangle a carrot"
- dinner, tuition fee, credit
- environment (non-school)

B) METHODOLOGY 1. Select delivery vehicle

Pre-service

Faculties of Education - student teachers

Inservice

Staff Meetings, Workshops/ Seminars, Professional Activity/ Development Day programmes, Teacher Training Institutes, etc.

2." Plan your work, work your plan."

General Format Sample A

Let's hear it from the content experts! (academic, government, industry)

Ag-Nutrition Break - informal, (use this to underline ag's local influence)

Materials and methods of using these in classrooms (integration into existing curriculum)

Resources to Go! (user friendly, must leave with something they can use tomorrow)

Evaluation (of programme) and Follow-up (newsletter, classroom visits etc.)

C)MATERIALS 1. Displays (visual appeal, underline wide base of support for programme, suggest alternatives not usually considered, opportunity to highlight new resources not possible to present in depth at this training session).

2. Resources (as many available as possible pertaining to the theme of your event)

DO	DON'T
Consider logistics time, location, driving distance, lunch facilities (who pays?), displays, audio-visual materials, etc.	Downplay teacher's role or knowledge.
Gain support of educators (teachers, trustees, administrators)	Overwhelm with information or materials.
Be professional	Oversimplify.
Be current.	Present a "canned" programme.
Use methods and materials with which teachers feel comfortable.	Push for urgency.
Present a flexible programme.	

OTHER TEACHER TRAINING OPPORTUNITIES

Provide input to A) education publishers regarding new text and teacher guide development.

B) teacher newsletters and support documents for new curriculum eg Ontario Ministry of Education's Science Is Happening Here (appendix C).

C)teacher conference agenda's

REMEMBER THE M&M'S - MOTIVATION

- METHODOLOGY

- MATERIALS to expand agricultural education today for informed consumers tomorrow.

Appendix A Middlesex County Association for Food and Agricultural Awareness Workshop

Association for Food and Agricultural Awareness

Middlesex County Teachers' Federations P.A. Day
Federation of Women Teachers Associations of Ontario
Ontario Public School Men Teachers' Federation

November 6, 1987 - Centennial Public School

Agenda

10:20 Welcome - Paul Ward, President
Association for Food & Agricultural Awareness

10:25 Feature Speaker - Mr. Art Bos President
Soil and Water Conservation Society - Ontario Chapter
Topic: Conservation - Who Cares?

10:40 Demonstration of Wind and Water Erosion - Upper Thames River Conservation Authority

10:50 Ross Desjardine - 1986 winner of the Middlesex Soil Conservation Award
Topic: Soil Today...Food Tomorrow
-On being a conservation conscious farmer
-The Soil & Crop Improvement Association

11:00 Film: Land our Last Resource

11:20 Workshops - Resource personnel from:
-The Upper Thames River Conservation Authority
Chris Meyers
Bob Carswell
Dave Martin
-The Ausable-Bayfield Conservation Authority

-The Lower Thames River Conservation Authority

11:45 Evaluations

11:48 Conclusion - Paul Ward

Appendix B Summer Institutes

1.Format Sample A - California's Summer Agricultural Institute Brochure

Ca*lifornia is the nation's leading farm state, producing over 25% of all the food consumed in the United States. California farmers and ranchers produce a wider variety of agricultural products than any other state.

Agriculture is a fascinating industry with one out of every three jobs in California related to the food chain. Amazingly, few individuals really understand the procedures involved in the production of food and fiber. This lack of knowledge emphasizes the need for the study of agriculture to be introduced into California's classrooms.

Educators across the country are becoming increasingly interested in incorporating the study of agriculture in their existing curricula. California has served as a role model in this area, with the California Farm Bureau Federation acting as a liaison between agriculture and education.

In expanding its agricultural education efforts, the California Farm Bureau presents the Summer Agricultural Institute (SAI), a five day seminar designed to assist educators in gaining a better understanding of agriculture.

The Summer Agricultural Institute is sponsored by the Farm Bureau as part of its ongoing program to bring agricultural information into California's school system. In addition to the SAI program, Farm Bureau's education activities include "Farm Day Program," "Farmer in the Classroom," teacher tours/workshops, university lectures/courses and student field trips.

The California Farm Bureau Federation receives financial support for this program from the California Foundation for Agriculture in the Classroom.

Q. What is the Summer Agricultural Institute (SAI)?

A. The Summer Agricultural Institute is a program informing California educators of all grade levels about food and fiber production and about incorporating agricultural education into the classroom. The SAI will combine hands on learning about agriculture with practical curriculum development and usage.

Q. When and where will the SAI be held?

A. The SAI is held annually the last full week in June in Sacramento.

Q. How much will it cost?

A. The only cost to the selected participants will be their transportation to and from Sacramento. Accommodations, food and travel during the SAI will be covered as part of the scholarship awarded to each participant.

Q. Who is eligible to participate in the SAI?

A. All active California teachers, administrators, professors and teacher educators from elementary through the college levels are eligible for an SAI scholarship.

Q. How many participants will there be?

A. Thirty individuals will be selected to participate.

Q. What is the admission procedure to the SAI?

A. Interested educators should return the attached form to receive an application. Completed applications must be postmarked on or before the last day of March prior to each year's SAI.

Q. Is it possible to earn credits for attending the SAI?

A. Two education units of credit can be earned through California State University, Chico.

What will I get out of SAI?

SAI participants will take home exciting resources designed to aid in educating students and teaching colleagues about agriculture. Participants will be asked to support "Ag in the Classroom" activities in their area. Some free tools provided are:

- Lesson plans for all grade levels
- The Farming Game
- Background materials on California agriculture
- Agricultural Education Resource Guides
- Instructional materials
- Organizational binder
- Complimentary one year subscription to *California Country* and *The California Farmer* magazine

What is "Farm Bureau?"

The California Farm Bureau Federation is the state's largest farm organization representing nearly 100,000 member families. It is a voluntary, non-governmental organization dedicated to improving farmers net income through various programs including public relations, education, commodity services, and legislative activities.

What is the "California Foundation for Agriculture in the Classroom?"

The California Foundation for Agriculture in the Classroom was formed by the California Farm Bureau Federation to promote a greater awareness and understanding of agriculture's positive influence on our daily lives. It financially supports projects in the areas of teacher training (i.e. SAI), student activities and resource material for the classroom.

Monday:

Introduction to California Agriculture

Evening: Farmer Panel Discussion

Tuesday:

Symposium on Credit/Finance and Economics/Commodities

Evening: The Educator's Role in Agricultural Education

Wednesday:

Aerial Tour (optional) of California Agriculture

Evening: Stay with Farm Families

Thursday:

Personalized Farm Tour

Evening: Gala Farewell Banquet

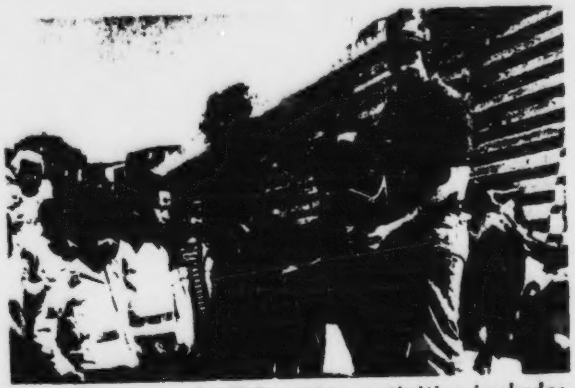
Friday:

Final Curriculum Seminar

It's sad but true . . .

Many city children, and even many teachers, have never visited a farm and their knowledge of where their food and fiber originates is limited.

The California Farm Bureau has established a unique program to help inform students and teachers of the important role agriculture plays in our economy.



Farm Bureau's Ag Education activities include:

- Farm Day Programs
- Field Trips to the Country
- Rural/Urban Exchange
- Farmer in the Classroom
- Unit Study on Agriculture
- Teacher Tours to Farms
- Teacher Workshops on Agriculture
- Career Opportunities in Agriculture and Agri-Industry
- University Course "Agriculture in the Urban Classroom"
- Summer Agricultural Institute

Format Sample B - Ontario's AITC Summer Institute Format

AITC SUMMER INSTITUTE PROGRAM

Tuesday evening - August 14, 1990

6:30 p.m.	Registration
7:30 - 8:00	Welcome, greetings, introductions objectives, overview of conference
8:00 - 9:00	Keynote speaker, Dr. Rob McLaughlin, Dean OAC
9:00 - 11:00	Social time

Wednesday - August 15, 1990

7:00 a.m.	Rise and shine - walking, jogging
7:30 - 8:30	Breakfast
8:30 - 9:00	Get acquainted (2-3 planned activities)
9:00 - 10:15	Plenary: An interactive, hands on activity focusing on small group cooperative learning using farm tools as the medium.
10:15 - 10:30	Nutrition Break
10:30 - 11:45	Plenary: AITC from three perspectives (producer, teacher, ministry of ed)
11:45 -12:45	Farm Tours (get ready) Lunch
1:00 p.m.	Board Bus for Farm Tours
1:45 - 6:00	Farm Tours
7:30 - 9:00	Barbecue at University of Guelph - A social time for learning and sharing.

Thursday - August 16, 1990

5:00 a.m.	Rise and Shine!
5:45	Board Bus
6:45	Arrive Ontario Food Terminal
7:00 - 9:15	Breakfast and Tour of Terminal
9:30	Leave Food Terminal
10:15 - 12:00	Tour of Maple Lodge Farms (chicken processors) Norval
1:00 p.m.	Lunch at University of Guelph
2:30 - 4:30	Agriculture in the Future (animal and crop science)
6:00	Dinner
7:15 - 9:15	What Now? Workshop skills (most significant learning community implications/ issues, program curriculum.

Friday - August 17, 1990

8:00 a.m.	Breakfast/ Speaker
9:00 - 10:15	Resources- What's available and how to access (browsing and conversing)
10:15 - 10:30	Nutrition Break
10:30 - 11:45	Goal Setting Exercise Networking Groups (NE, CENTRAL, SW) Evaluation
12:00 - 1:30	Lunch / Presentations / Wrap-up

RESOURCES WITHIN THE COMMUNITY

"PUBLIC RELATIONS: DAIRY PRODUCERS AND THE COMMUNITY"

SPEAKER: Nelly Omvlee, Woodstock, New Brunswick

PROMOTION: Does it pay?
Billboard vs People
Give aways vs Farm Visits

Who do you tell in the Community?

PROMOTING IN THE SCHOOL SYSTEM:

KINDERGARTEN: They visit you.
Introduced to farm life.

GRADE 4: School visits include presentation of the story of "Milk from Farm to Family" and provide them with a remembrance.

GRADE 10: Maritime Studies - answer their questions on Agriculture in Maritimes or Agriculture in their own Community.

GRADE 12: Biology class - the science of dairy farming. The jobs available.

SCHOOLS AND THE PUBLIC: The field day quizzes, games sell product. Fairs, booth, meet people, sell promotion items. Special events "June is Dairy Month". Open House. Service Club speakers.

PROMOTING IN THE COMMUNITY:

How do you reach it?
Farm visits.
Puppet shows.
Slide presentations.
Give aways, posters, pencils, cow erasers.
Promotional items.
Radio quizzes.
Talks.

Who will help? N. B. Milk Marketing Board.
Dairy Producers, other farmers.
Dairy Processors.
Media - Radio, newspapers.
Agricultural College.
Department of Agriculture.
Farm Women's Organizations.
Teachers.

ABSTRACT OF COMMENTS FOR PANEL DISCUSSION

AGRICULTURE IN THE 1990'S

FRANKLIN PAUL EGGERT

Man's desire to produce more food with minimum expenditure of human effort has led to increased inputs of energy. This was possible through the development of highly specialized expensive equipment which eventually resulted in intensive monocultures. Such monocultures, while producing high yields, also provided an environment favourable to the development of problems. Among these were increased pest populations with the subsequent development of resistance to pesticides; abuses in application of chemicals leading to eventual agricultural pollution from pesticides as well as from fertilizers; potential vulnerability to crop failure particularly where genetic homogeneity is involved; and most importantly, as population pressures increased, higher energy inputs seemed necessary.

It should be apparent that the universe as a planetary system has limitations and that a monoculture will tend to deplete selectively those nutrients most needed by the crop grown. Since energy is necessary for the manufacture of the chemical compounds used in agribusiness we are also depleting the available energy resources - petroleum and other fossil fuels, all of which are non-renewable. In the coming decade (the 1990's) we shall have to cope with this uncomfortable situation. We must reduce the levels of pollutants added to the environment as a consequence of the demand for various forms of energy - fertilizers, pesticides, herbicides, and electricity. We must return to agricultural practices that include rotation of crops, crop diversification, increased human input and a combination of livestock and cash crop agriculture. Home gardens should continue to be a valuable asset for all who wish to assure themselves of a reliable source of healthful food.

AGRICULTURE IN THE 1990'S

S. E. PORTER

CANADIAN COUNCIL OF GROCERY DISTRIBUTORS

Perhaps in no other industry is the phrase "The Old Grey Mare Ain't What She Used To Be", so applicable as it is in the agriculture industry.

Thirty years ago who knew what the following were: integrated pest management, modified atmosphere packaging, biotechnology, GATT, sustainability.

It's difficult to put the broad topic of agriculture and agricultural education into proper perspective. After all, the "activity" of agriculture encompasses so much of the activity needed to bring a product to your dining room table. The production, processing, packaging, distribution, wholesaling, retailing, advertising, etc. all have an educational element that is critical to the equation of understanding the impact of our agricultural industry.

This is perhaps one area where even those involved in agriculture fall down. We tend to think of agriculture as something that stops at the farm gate.

Canadians are becoming "agriculturally illiterate". With less than 4 percent of Canadians now living on farms, even though we depend on agriculture for food, fibre and much of our foreign exchange, we still, as a population, know little about what makes agriculture work and survive.

In order to understand the importance of the industry and to impact this understanding to students and the general public, we must broaden our base to think of agriculture not only as farmers. We tend to forget that all of these people buy cars, insurance, clothes; they buy homes. They pay taxes. They are consumers with television sets and kitchen appliances.

In order for this message to be broadcast and understood in all segments of the community, we will need commitment from the producing sector, processing, education, political, and retail in order to accomplish our goal.

Agriculture has changed, it is important and we must be able to communicate all the components with our changing population.

AGRICULTURE IN THE 1990'S

S. M. DAVIS

Ontario schools have well-thought out and relatively new curricula at the Secondary School level. These guidelines provide the framework for effective teaching of Agriculture. However, there are a number of reasons why their full potential is not being realized - that is, to make all students aware of the importance of Agriculture in their lives and how it can become a career which as a mission is both rewarding and satisfying. This paper looks at the problems and offers some possible remedies. In doing this, I will review briefly the changes that have occurred in Agricultural instruction over my 30 years at Lindsay Collegiate and Vocational Institute, and identify the situation as it exists today.

Lindsay is a town of 16,000, County Seat to a large rural area where more than half the students are bused in. Like many rural areas the majority of the rural students do not live on farms and those that do, have parents that work off the farm. Students who live on progressive farms realize the High Tech complexity of the business and are involved in 4H clubs, as well. They come into school already motivated. My school has a population of about 1,300 students and is seriously overcrowded. Back in 1959, everything was static-staff, students and salaries. There was the typical farm shed out back for tools and chickens. There were 2 Agricultural courses for boys only and the Ontario Department of Agriculture grant was absorbed into running the whole science program. Then, in the early 60's Dominion-Provincial grants built Composite Schools across Ontario. L.C.V.I. got a large roof-top greenhouse with a huge area below for Technical Agriculture. We had an animal pen for a milking cow, a farrowing crate for a sow, a cage unit for layers and a processing plant for chicken broilers. Over 30 boys went on to Kemptville and Guelph over the 4 years that the course existed and many are successful in the industry today. This made great demands on my time but the reward was there and we had a high profile in the school.

Then the County Boards of Education were formed. The Department of Agriculture withdrew its grant and simultaneously the Baby-boom flooded the school. With lost space and funding, the program was cut back. The streaming of students into Basic, General and Advanced abilities caused a proliferation of courses and Agriculture was identified as General level, while Advanced students formed the backbone of each class.

The number of schools offering Agriculture decreased rapidly as Ontario urbanized and the Ministry developed a new Environmental Science guideline. Under this umbrella we created 4 courses.

1. Grade 9 - Environmental Science
2. Grade 10 - Horticulture

3. Grade 11/12 - (a) Environmental Science
(b) Agriculture

This program allowed us to teach about 200 students each year with a few going on to Agricultural College. Since funds were limited now, Agricultural students went on field trips to farms, businesses and fairs instead of the hands on approach in the shop.

Then in the 80's there was political pressure to revamp education again, partly to standardize curricula. OSIS (Ontario Schools: Intermediate and Senior) was in. Agriculture as a course was out. After much effort from writing teams, five Environmental Science courses were assembled - Grade 10, 12 Advanced and Grade 10, 11, 12 General. Horticulture became a Technical subject administered by Science. These courses have Agriculture topics built into them, so if the courses are offered, by the school and the student's elect enrol, they can receive a well-rounded Agriculture education. (see pages 3 & 4)

OSIS also inserted a core unit into Grade 9 Science entitled, "Food, Energy and People" (FE[illegible] "Ontario Ministry of Agriculture and Food" (OMAF) prepared an excellent resource binder and held workshops to explain it to all Science teachers in the province.

The F.E.P. unit is subdivided into:

1. Constituents of Food

2. Energy and Food

3. Food Production

4. Food Processing

This 16 hour unit represents about 14% of the course. Most students take Grade 9 Science. Under OSIS there is a potential for more courses to be offered in the school. L.C.V.I. lists 219 courses. Science alone administers 23 and runs 53 classes in 8 teaching areas. Students coming into High School face a minimum of 30 courses in order to graduate and 16 of these are compulsory. Advanced students have to work 6 OAC credits into their 16. (Ontario Academic Credits) as prerequisites for University Entrance. There is a stiff competition for electives of which Environmental Science is one. Advanced students who "Fast Track" can usually work in only 2 electives each year and Typing, Computers, Technical and Physical Education are also important to a Science oriented student. This is one reason why there is such a decline in Technical students in Ontario at a time when there is a shortage of Tradesmen. David Peterson in his election campaign promised to make Grade 10 Technical compulsory. Perhaps he could do the same for Agriculture!

Environmental Science General Level

Core Units

Grade 10

1. Plant Science
2. Animal Adaptation
3. Soil
4. Energy
5. Ecosystems

Grade 11

1. Energy Pathways
2. Plant Science
3. Animal Science or Wildlife Biology
4. Aquatic Systems

Grade 12

1. Soils
2. Air Quality
3. Pests

Optional Units (2 of)

A. Horticulture
B. Forestry
C. Gardening
D. Insects
E. Ag. Crops
F. Local Designed (LDU)

(3 of)

A. Horticulture
B. Forestry
C. Ag. Crops
D. Landscaping
E. Gardening
F. Noise
G. Outdoor Skills
H. LDU

(4 of)

A. Horticulture
B. Ecosystems
C. Plant/Animal Pathology
D. Genetics
E. Landscaping
F. Agribusiness
G. LDU
H. LDU

		Environmental Science		Advanced Level
		Core Units		Optional Units (3 of)
Grade 10	1.	Natural Environment	A.	Soil
	2.	Energy Systems	B.	Plant and Animal Reproduction
	3.	Terrestrial Ecosystem (study)	C.	Plant Science
	4.	Population Study	D.	Domestic Animals (feeding)
			E.	Microbiology
			F.	Forestry
			G.	Outdoor Skills
			H.	LDU
				(3 of)
Grade 12	1.	Energy Resources	A.	Genetics
	2.	Aquatic Ecosystem	B.	Environmental Health Hazards
	3.	Water	C.	Soil
	4.	Air	D.	Fish and Wildlife
			E.	Pests
			F.	Plants and People
			G.	Outdoor Skills
			H.	LDU

When I retired in 1989, a new teacher with an MA in Environmental Science, from Simon Fraser University, was hired. He is a superb teacher but he admits that his lack of background in Agriculture puts him at a disadvantage. Since most students take Grade 9 Science, this course has the greatest potential for - "passing the word". However, most Science teachers will tell you that time constraints, lack of familiarity with Agriculture and prioritizing Basic Science limits the effectiveness of the unit. In addition the topic is usually taught at the end of the course when everyone is wearing down. However motivation can be promoted through the use of field trips and speakers but the 12 sections of Grade 9 Science are difficult to mobilize since any such effort disrupts the entire school.

Considering this problem, how do we get Grade 9 students to sign up for the Environmental Science? Advanced students, being mark oriented, take the perquisites to the senior courses and lean toward the electives that will give then the highest marks. Project oriented courses, such as Environmental Science, are suspect. General level students are less motivated to learn and do projects but have a better chance of passing Environmental Science, so General Level Environmental Science is more likely to fly. Teachers put a disproportionate amount of time into this course in order to maintain a momentum. These are real problems existing right across Ontario. Any improvement, and I see it, involves,

1. Attitude

Students attitude towards studying Agriculture needs to be addressed in Elementary School. There is an organization in our County call "Victoria County Agrifood Association" which is made up of representatives of rural organizations. It has a sub-committee "Agriculture in the Classroom" which will conduct teacher information sessions, monitor and update Board film resources and create a pool of speakers and farms for tours. This type of community involvement should be used by Boards and teachers to make students aware of the importance of Agriculture in the local economy.

2. Quality Teaching in Grade 9

Science teachers should have a mandatory Agricultural course at Teachers College or have in-school or summer school training. In addition the Board might consider paying a farmer to come in during the school year to teach "Food Production" in concert with the teacher. The Food, Energy and People unit should be programmed early in the school year.

3. Students could be encouraged to take Grade 10 Environmental Science in place of Grade 10 Science, then they might take the Grade 12 course as well.

4. Organize a rural group to help design Agriculture units. A spin off might be that they will help in teaching it.

5. Promote Environmental Science courses as a package leading to the OAC course "Science in Society". This program would be designed for students who do not intend to pursue Science as a career and hence capture a larger audience. (see Science in Society page 6)

6. Rural groups could petition the School Board to institute a locally designed course exclusively in Agriculture.

In conclusion, people involved in promoting Agriculture should realize that students are becoming further and further removed from the system that puts food on the Supermarket shelves. The first objective is to make students aware of the effort and knowledge it takes to produce, process and market high quality food efficiently. Secondly students should realize that food gathering is undergoing very rapid technological changes and thirdly, that there is a career out there that can be very rewarding. A student who is inspired in Grade 9 now will need the 90's to prepare for a career in the next century.

Science in Society - OAC

	Core		Optional Either/Or
1.	Design in nature	A.	The human consumer
2.	Science at work	B.	Conflicts related to science
3.	Life, food and health		
4.	Resources and energy		
5.	Scientists and their discoveries		
6.	Transportation and communication		

AGRICULTURE IN THE 1990'S - SCIENTIFIC AND PROFESSIONAL ASPECTS

F. L. McEWEN - ONTARIO AGRICULTURAL COLLEGE, UNIVERSITY OF GUELPH

Over the past fifty years agriculture in Canada, as elsewhere in the developed world, has changed dramatically. Today we cannot deal with agriculture in segments but rather as a complex agriculture and food system with great economic impact and employing almost 1.5 million people in Canada. While the industry on the whole is growing and prosperous, some segments in the processing sector face an uncertain future and the primary producers of many commodities are in deep financial trouble. Low world prices for grains are likely to continue throughout the next decade and the United States - Canada Free Trade Agreement will put increasing competitive pressure on all commodities.

During the 1990's, success will be determined by the extent to which Canadian farm products can be placed on the market at quality and prices that compare favourably with those of our major competitors, particularly the United States. Added to this need for efficient production will be a whole series of issues related to healthful foods, sustainability and environmental enhancement. Canada has no choice but to meet the challenges of competitions because the viability of Canadian agriculture and, indeed, the continuance of a favourable balance of payments, demands the export of agricultural commodities.

Canada has both the natural resources and the human resources to meet the challenge. To do so however, will require more coherent and forward looking research, development and marketing policies for the agri-food sector - research to discover the new technologies, development to adapt these discoveries to harmonize with our resources and marketing both at home and abroad. An essential part of that marketing will be a flow of information to the Canadian public that assures it of the safety and benefits that efficient, competitive agriculture brings to Canada.

The Agriculture and food industry, from the producer to the retailer, must develop a highly professional approach. The basis for this will be a higher level of education and training and the adoption of rigid standards, hopefully imposed by the industry itself rather than by government regulation. Food production is now a sophisticated enterprise using a large number of food enhancing chemicals, new biotechnologies and an ever increasing variety of packaging materials and methods. Successful practitioners will need to know how to use these responsibly so that the end food product is of the highest quality, natural resources are not over utilized and the environment is not degraded. The "know how" of practical farming must be enriched by the disciplines of ecology, nutrition and toxicology as well as by the economics of local production in the setting of world markets.

P. B. WADDY

GROWING OUR FUTURE

SUMMARY OF PANEL REPORT "AGRICULTURE IN THE 1990'S"

OUR MISSION: **NEVER NEGLECT OUR FIRST DUTY "TO EARTH AND TO WATER".**

"THE FUTURE BELONGS TO THOSE WHO PREPARE FOR IT"
RALPH WALDO EMERSON

REPORT ON IMPORTANCE OF AGRICULTURE TO THE ECONOMY.

FIVE AREAS: EFFECTING AGRICULTURE IN THE 90'S.

(1) **EFFICIENCY**
- IN PRODUCTION PER COW
  - YIELDS PER ACRE
  - FEED CONVERSATION RATES
- FROM BIOTECHNOLOGY
  - GENETIC ENGINEERING
  - ROBOT MILKERS

(2) **GLOBALIZATION OF AGRICULTURE**
- COUNTRIES BECOMING SELF SUFFICIENT
- DEVELOPING COUNTRIES ARE NOW BEGINNING TO EXPORT.
- NEED OF SUPPLY MANAGEMENT
- 92 COUNTRIES UNDER G.A.T.T.

(3) **MULTI NATIONAL AGRIBUSINESS**
- IMPACT ON TOTAL AGRICULTURAL SECTOR
- INTEGRATED "FOOD SYSTEMS"
- EFFECT ON SMALL FARMER

(4) **PERCEPTION OF GENERAL PUBLIC**
- FOOD SAFETY
- LOW FAT ISSUE
- NUTRITIONAL LABELLING
- ENVIRONMENTAL CONCERNS
- WELFARE OF ANIMALS

(5) **GOVERNMENT POLICIES**
- ECONOMIC EFFECT/FREE TRADE
- SUBSIDIES
- POLICY SHIFTS
- GROWING TOGETHER

REPORT ON CONDITIONS ON THE FARM

HOW WE ARE RESPONDING TO CHALLENGES:

ORGANIZATIONS OF FARMERS
- MILK BOARD
- DAIRY FARMERS OF CANADA
- DAIRY BUREAU OF CANADA

ATTRIBUTES OF FARMER, DIRECTOR OF FARM BOARDS
- MANAGEMENT SKILLS
- COMMUNICATIONS SKILLS
- INTEGRITY

BASICS LEARNED IN THE EDUCATION SYSTEM
- HARD SKILLS
  - MATHEMATICS
  - SCIENCE
  - PHYSICS
- SOFT SKILLS
  - ENGLISH
  - FRENCH
  - COMMUNICATIONS
  - ENTREPRENEURSHIP

ABOVE ALL THE PERSON MUST BE INSTILLED WITH:
A WILLINGNESS TO LEARN
THE ABILITY TO LEARN.

EDUCATION AND AGRICULTURE

OCTOBER, 1990

MARGARET NORRIE McCAIN

I would like to begin by expressing my appreciation to Dr. Chesley Smith for inviting me to participate in this conference - "Agriculture In The Classroom"! I am very grateful for the opportunity to speak out not only for education in agriculture, but for education in general. I would like to commend the organizing committee for their vision and initiative in organizing this conference here in New Brunswick and for their positive action in raising public awareness of the needs of the agricultural industry. It is evident to me by the number of participants and the level of interest that there is still much work to be done in altering public misconceptions that agriculturists are (or can be) uneducated people.

Had I known that this opportunity was going to come to me at 8:15 in the morning I am not sure I would have welcomed it quite as enthusiastically. My family would be quick to tell you that I am neither civilized nor responsible before 9 AM (at the very earliest) and they would be apt to warn you that anything I have to say at this hour would not be reliable. So I assure you that my message has been carefully written down.

I have been introduced to you as the Chancellor of a University. It would be normal, therefore, for you to ask yourselves what, if anything, does she know about agriculture. So perhaps I should preface my address with a bit of background information to show, as the young people would say "Where I'm Coming From".

My roots run deeply into the land of Atlantic Canada, and my family tree boasts a long line of farmers on both sides. My mother's family have farmed the same land in Westmoreland County, New Brunswick for over 200 years; and on my father's side our family have farmed the same land in Nova Scotia since 1832. Much of my youth and childhood was spent living on a farm; and all of my married life has been spent in a rural community located in the heart of New Brunswick's potato growing region. My husband's family have been potato grower's in Carleton County since they arrived from Ireland in 1830, but my husband's career has been in a multinational agri-food industry which began in 1956, early in our marriage. My mother, after having raised her family, was appointed to the Canadian Senate, where she became a passionate and vocal advocate for the needs and rights of the farmer. Drawing from these varied influences, I shall be speaking to you from the combined perspectives of the Producer, the Protector of the Land, the Politician, the Food Processor, the Agri-Businessman and lastly from the Perspective of Education. I should also add that in my family, education was given the very highest priority. It was, in every sense akin to a religion. This flowed from the old Methodist philosophy -- the philosophy by the way on which Mount Allison University was founded - that intellectual and spiritual elevation go hand in hand. Both of my parents worked very hard to earn their university degrees (my father in 1913 and my mother in 1928) and they, in turn, devoted their lives to helping other capable and deserving youths to fulfil their ambitions in higher education. At a very early age I was infused with a deep respect and reverential attitude toward education. Education, in my family, was considered to be a privilege - a privilege to be treated with a great sense of responsibility.

The democratization of education at all levels, since the 1960's, has expanded the opportunities and the accessibility of education to such a degree that what was once considered a privilege gradually became, in the minds of the public - a right!

In the 1940's six percent of Canadians beginning the first grade went on to earn a university degree. Today in excess of sixty percent of our high school students go on to some form of post-secondary education -- many of those to university. But achieving the status of "A Right" in our society has been a mixed blessing for education! Sadly, rights are too often accompanied by public attitudes of apathy and lethargy -- especially so when something comes easily and freely -- or at the very least cheaply -- as education does in Canada! To get anything easily and freely almost always reduces its values in public perception. It is essential, even imperative, ladies and gentlemen, that these attitudes be changed. Education which once was a privilege and which later became a "Right", is now in modern society -- a necessity -- a necessity for individual and for societal prosperity!

I read once that the definition of the agriculturist is "a farmer who's son went to Agriculture College". This can be interpreted several ways. It could mean an attempt on the part of the young man to elevate the status of the farmer in society. It could also mean a recognition by society that farming has passed from being "a way of life" or merely a means of survival -- into the status of a profession. To me it reflects awareness on the part of the father that education is now an as integral and vital to the health of agriculture as it is to any other industry or profession.

This has not always been the case - not even in my lifetime - not even in my mother's family where the son stayed home to work the family farm and the daughters were sent to University. The accepted societal attitude that the inheritor of the family farm did not need post secondary education (even sometimes a full secondary education) once was wide spread. "What was good enough for my father is good enough for my son" was once an oft repeated statement which can still be heard today from time to time. But things are different now! Never before in history has education been as important to the welfare of all mankind as it is now in our modern society. The 21st century promises to be a global information based society - an age where brain will replace brawn. Our richest resources will not be oil -- or timber -- or fish -- or minerals -- or water -- even our rich and abundant land. It will be our human resources -- our people -- a well educated, innovative and productive people. Education will be the engine which will propel our economy to generate wealth to support our social benefits and to maintain the high standard of living our Country currently enjoys and complacently thinks it will always be this way! Education is critical to the economic health of our nation and of all other nations. It is critical to your future well being and to mine. And the agriculturist who is a vital part of Canada's economic mosaic is not, and cannot be, exempt from this continuing need for a broad base of knowledge. It is a widely accepted fact that the economic health of a nation is predicated on a strong agricultural base. Thomas Jefferson called it "The First And Most Precious Of All The Arts"; and the great french writer Jean-Jacques Rousseau, whose writings so influenced social and political thought in 18th Century France called it "The First And Most Respectable Of The Arts". Daniel Webster said of farming "It Is The Most Important Labour Of Man.

The time has now arrived when agriculture must assume its place as one of Canada's important (perhaps most important) industries. And as in other industries, like any other profession - success is predicated on a strong educational base.

The agriculturalist in his (or her, which we must say today) multifaceted profession, needs more than any other professional a firm foundation in the core curriculum - beginning with good reading and writing skills; and highly developed mathematical skills -- skills which are fundamental for any educated person. The agriculturalist will have an increasing need for a broader than average knowledge of the sciences - particulary chemistry, biology, and bio-chemistry. A good agriculturalist must understand the composition of the soils - it's needs and deficiencies; he or she must understand the chemical components of fertilizers, fungicides and insecticides and their potential hazard to man, to crops and to the environment. He or she must have a sufficient base of scientific knowledge to deal with the new scientific discoveries which appear on the scene at mind boggling speed. Scientific knowledge is essential for the modern agriculturist to make educated choices between chemical farming, organic farming or sustainable agriculture. And, looming at the horizon, by the year 2000 a major portion of our modern methods of crop production could be rendered obsolete by discoveries in the new and important science of bio-technology. Research in plant genetic engineering will in the very near future revolutionize food production -- reducing, if not eliminating the need for insecticides and fungicides. In animal science, bio-technology holds out the promise of products to enhance economies for dairymen and for beef, hog and poultry producers. The modern agriculturalist must also have knowledge of good business practices; of financing and budgets; and how to run a cost efficient operation. He or she must know how to sell and how to market the product effectively in the global market place; and how to diversify and make changes and adjustments as the market demands. The agriculturalist needs to understand economics - the effects of national and international market forces, of international currencies and interest rates; the content and effects of old and new trade agreements; of subsidies and tariff laws - all of which will impact on the success or failure of his or her operation. The agriculturalist needs to be knowledgeable of political science - how our governments work and those of our closest neighbours and trading partners; he or she needs to know why some countries will open their doors to trade and others will not; which foreign governments are stable, which ones are not and why; where new alliances are likely to form and how this will impact on the balance of power and our economic security. To move easily and comfortably within the global marketplace, skills and fluency in a second, third or more languages would certainly increase the level of potential success for the agriculturalist. Knowledge of national and world history; knowledge of other cultures and behavioral characteristics of the people in other countries will become increasingly more important in the future as we move farther and farther toward the globalization of society and the market place. The agriculturalist also needs at least minimal engineering knowledge in order to maintain the wide array of equipment necessary to run his mechanized operation and to deal with the rapidly changing technology in the industry. The modern agriculturist will also need to be computer literate in order to achieve or maintain a competitive edge in the industry. By its very nature, the diversity of agriculture demands a broad and diversified base of knowledge.

Important as it is, agriculture is but one segment of Canada's total economic picture. To meet the current and future challenges emanating from all parts of the world; the competition from economically aggressive nations; the uncertainties arising from sweeping political changes and from new alliances; and the adjustments arising from new trading partnerships and from new scientific discoveries - the best and most important tool for all segments of Canadian society will be education.

I would like now to look at the importance of education in a general sense and in the broader context; and to do this I would like us to consider, for a moment, education's place in the 21st Century in light of the globalization of society, of the economy and of the marketplace. It is easy to understand the importance of education in relation to ever changing technologies and to new scientific discoveries. But I would like to take a brief look at the world and the challenges we in Canada will face if we hope even to maintain our standard of living and our competitive edge economically - to say nothing of progress!

The most immediate challenge facing Canadians results from the Canada/U.S. Trade deal signed in 1989. We were told during the negotiations that there would be "winners and losers" - hopefully more of the former. It happens that agriculture and the agri-food Industry fall into the loser category. Given our climatic disadvantages, our shorter growing season and lower crop yields; given our higher costs, higher wages, higher social benefits, higher taxes; and given our system of supply management, the canadian agricultural industry will have great difficulties competing with the United States - as things stand today - unless our Canadian dollar (relative to the U.S. dollar) remains at $.78 to $.80 or less. Maintaining the health and competitiveness of the Canadian agricultural and agri-food industry; and meeting the potential threats to the health of our economy and to our sovereignty poses awesome challenges for the future. How best can Canadians deal with the inevitable changes and challenges? It is essential that we must be informed, alert, innovative, energetic and forthright in articulating our needs; but most importantly we must begin with a strong educational base. Without it our future will be bleak!

Let us now move still farther a field and take a look at challenges from the European arena. By 1992, the countries in Western Europe will have completed their plan for totally free trade with each other. With the elimination of all trade barriers, border controls, currency inequities; and the harmonization of subsidies and social benefits they will form a large and energetic trading block with a united Germany setting the pace! The industrious and ambitious nature of the German people is well known, as is their superiority in science and technology, and their Commitment to education! Consider this carefully, while comparing the Canadian, and the North American complacency toward education, and the deterioration of our work ethic. I suggest to you we have cause for serious concern about our economic future.

The sweeping political changes in Eastern Europe in 1989 left us shocked and speechless by the rapid unravelling of the communist world.

As we observe with awe the rubble exposed by what we thought were impenetrable walls, concerns begin to invade our senses. Most of us breathed a sigh of relief when the threat of nuclear war faded. We shared in the joy of the people who were tasting the first fruits of freedom. We even felt a sense of generosity and a willingness to help these countries on their way to recovery. But as the ex-communist countries emerge from the rubble it has become evident that they have three major advantages working in their favour:

(1) They have a national unified will to shed communism and to embrace a democratic society.

(2) Many of the countries have a history of productivity in their pre-communist days.

(3) And most importantly they have a highly educated population.

The Soviet Union despite their lack of productivity has more graduate engineers than the U.S.; they have more research scientists than Japan; and they have more medical doctors per head that all Western Europe. This knowledge could and should act as a stimulus to revitalizing our interest and commitment to education in our own country - as a means of meeting any future political and economic challenges which will inevitably come from the whole European arena. As the military threat from Eastern Europe diminishes, the billions of dollars we now spend on defence, redirected toward education, would serve all Canadians more productively in the 21st century.

But the world's greatest modern day challenges comes from the countries of the Pacific Rim and dominated by the growing Japanese financial empire - a country that only 45 years ago lay in ashes and almost total destruction. It is not an accident that their rapid rise to the current position of the world's wealthiest nation is in direct proportion to their national commitment to education, and to research and development. Their powerful national will, once focused on military might and aggrandizement, has been redirected toward economic power with education as a vehicle. The strength of the Japanese self-discipline and sacrifice for the National good is legendary. Today this will is being directed toward learning, beginning in kindergarten and continuing through university, with fierce and aggressive competition for places in the best schools and Universities. Japan is very concerned these days that their young people are growing soft so they are encouraging schools to introduce incentive programs aimed at toughening up their students. My husband and I were in the Far East last year and we were fascinated by a story we saw in the newspaper about a seven year old boy who had won the prize in his school for going 3 years wearing only a pair of shorts - no shirt, no shoes, no coat, in all seasons and in all weather. His mother admitted he was sick a lot at first but eventually his body adapted. I do not advocate such extreme measures, but it does tell us a lot about Japanese discipline. The powerful message from this, is Japan's recognition that education is essential to their economic might in the 21st Century and their strong commitment to it.

If one is to conclude then from mounting evidence that education is the engine which will propel our economy now and into the next century, it is incumbent upon us to ensure that the engine operates at peak efficiency. In February 1990, 700 international business and government leaders from 46 countries including Canada, met in

Davos, Switzerland for the World Economic Forum. Global issues such as international trade, the environment, education, science and technology were discussed. There emerged from these discussions the firm belief that education is the key to economic and social progress in the modern world; and human capital - the knowledge of people is essential to the productivity of industry. Michael Armstrong, the Chairman of IBM, stressed that rapidly changing technologies will require high levels of educational skills. He went on to say that without a good educational system a country will be hard pressed to stay ahead in today's competitive world.

It follows then that Canada's universities, colleges and schools, along with our research and development programmes, play a critically important role in our future. A strong commitment to making them a high priority has in my opinion, a sense of urgency - beginning with the development of national awareness of their importance, and a will to give them the necessary support. I am aware that I am addressing primarily a group of secondary and elementary educators. However, it goes without saying (and yet bears repeating) that elementary and secondary education is basic and fundamental. Without the adequate preparation of students in the early formative years and the instilling of positive and healthy attitudes, they would never arrive or succeed in post-secondary education. Your role in education is crucial -- not the least of which is your responsibility to inspire and to motivate your students through your own positive attitudes towards education and your own understanding of its vital importance to our nation's economic and social progress. You can also play an important role in translating this message to governments and to society generally. I am saddened and concerned by the apathetic attitudes toward education held by people of all walks of life in our society. It is a grave indictment on our future! Therefore, I leave you all with a challenge -- to do your part to re-establish education to the highest priority levels of governments and, of course, with the people who elect our governments -- the voters -- the people at the "Grass Roots". With that appropriate pun I shall conclude my address.

CAREERS IN AGRICULTURE

BRIAN M. CROUSE, P.AG.

To the Third National Agriculture in the Classroom Conference, October 14-16, 1990, Saint John, New Brunswick.

The presentation will serve to outline the wide range of career opportunities available to students studying at agricultural colleges or facilities of agriculture in North American universities.

The change that is evident in the Agri Food Industry has spun and created careers that are modern and technologically updated. High school students generally do not have a good understanding of career options available to them following post-secondary study in agriculture. The industry has image problems that has had an impact on this. Young people cannot see agriculture beyond the farm and this in turn has kept many high school students from even considering post-secondary study in an agriculture field.

Another factor working against enrolment is a declining interest in science and engineering in high schools, which are fairly standard requirements for study in the applied biology that agriculture is.

Industry and education representatives must work together to get the message to our young people that excellent professional and technical career prospects do exist in the food industry.

A person can work in research, in teaching, in communication or journalism, in advertising and product development, in bio technology, in youth development and all still be working in agriculture. An advertising executive who writes television commercials for a fast food company, an engineer who designs buildings, a computer programmer who is responsible for controlling the environmental conditions in a barn, an accountant who does bookkeeping for a large multi national corporation - these are all examples for careers in the agri food industry.

"Today's Agriculture" - it is more than you ever imagined.

Once you recognize that agriculture is a lot more than farming, it will be easy to visualize the career opportunities offered by the industry. There is probably no more important business than food production. The largest single industry in Canada naturally provides a spectrum of career challenges for agricultural students.

CAREERS IN AGRICULTURE

By

BRIAN M. CROUSE, P.AG.

Student Placement Officer

Nova Scotia Agricultural College

Today's agriculture has undergone tremendous change. That not only includes innovation, the use of technology and computerization in the industry, new products on the market, etc. but that change has also happened "down on the farm." That change has impacted on the careers that are available to today's young people. Careers exist today that have developed with the changing technology. There are careers in Food Safety, in monitoring agriculture's impact on the environment, in computer applications, in animal health management, in research and development.

Producing food in today's very tough economic environment requires shrewd managerial skills. The number of graduates with degrees entering employment either in farming or as farm managers is evidence of the increased academic requirements to enter that level of the industry.

Yet it's the image of Murray Maclaughlin; "The Farmer Song" that remains. Agriculture's poor image has hidden the excellent career opportunities available to young people currently graduating from high school.

George Sollenberger recently featured this theme in an issue of the Furrow:

> "The economic hard times of the 1980's afflicted not only farmers and ranchers but also input suppliers and businesses that process agricultural products, transport them and market them to consumers. Agriculture would seem as a declining industry offering relatively little in the way of job opportunities for young people making career choices.... One result of this poor image was a major drop in enrollment at Agricultural Colleges and Technical schools.

> Now the piper is being paid with agriculture finally on the rebound there are more job openings than qualified graduates to fill them. This is hurting employers in a number of ways. Some are not able to expand as fast or offer as many services as they would like. Many are spending more on recruiting, some also are spending more for on the job training.
>
> But there is a bright side to the shortage of agricultural graduates. For those who ignored the gloom and doom talk, stuck with agriculture as a career choice and are now finishing college or technical school opportunities are abundant. Job offers are easy to come by in fields ranging from sales to food science - starting salaries are climbing fast.
>
> In addition the shortage has encouraged employers and educational institutions to work together more closely. One result is new curriculums designed to better prepare students for the careers available in modern agriculture. Finally the shortage of ag. grads has spawned a number of organized programs aimed at improving the image of agriculture and agricultural careers. Everyone involved in agriculture can help with this image polishing. While all it's ills have not been cured, agriculture today is a vibrant exciting industry offering a wide range of rewarding career opportunities. Agriculture's story is a good one and it needs to be told."

WHO'S RESPONSIBILITY

Certainly, as some contend, the onus seems to be on the industry to improve its image by making more people aware of what today's agriculture is actually all about. Before the level of awareness of career opportunities can reach the students who are in the schools looking for the information to make their career choices. It is a curious situation, though, when Faculties of Agriculture at North American Universities as well as Agricultural Colleges are depending on the industry to help them with their recruitment of students.

DECLINING SCIENCE ENROLLMENT

Agricultural programs have been caught up in a general decline in enrollments in the sciences and engineering at the post secondary level across North America. This decline in interest in science is another compounding factor to the problem.

There are certainly many careers in the food industry that are not science related. But agriculture really is a life science - it's an applied Biology field and studies in agriculture usually require a heavy science course load. We now add to the lack of awareness of career potential, a decline of three to four percent per year over the last few years of high school students studying science and are faced with quite a dilemma. And then to follow the situation through from the other end - we must not only concentrate on making young people more aware of careers in agriculture but we must provide them with that information at an early enough point in school so that they are able to pick up the science requirements necessary for the range of career options.

CAREER EXAMPLES - THINK OF FOOD!

To this point I have been vague in identifying what this range of career opportunities may include. Each of us here today will have our own lists that we are putting together in our minds based on our own frames of reference and our own experience. But I expect that if I were to challenge each one of you right now to turn to someone sitting near you and list as many careers in agriculture as you could off the top of your head your list would be somewhat limited - that often happens when speakers are talking to school students. Much of the list of careers in agriculture that we can come up with spontaneously depends on each of our own perceptions of what agriculture is. But how different that list becomes when our task is to make a list of careers in the agri-food industry. We can work in research, we can work in teaching, in banking, in communications, in journalism, in product development, in marketing, we can work in international development, we can work in biotechnology, in tissue culture and we can still all be working in agriculture. A young person can much more easily relate to the occupations that would be involved in bringing the food to their table than thinking in industry terms.

An advertising executive who writes television commercials for a fast food company, an engineer who designs buildings, a computer programmer who is responsible for controlling the environmental conditions inside a barn, an accountant who does bookkeeping for a large multi national corporation - these are examples that may not have been on your list of careers in agriculture, but they certainly all are involved in the food industry.

AGRICULTURE FARMING

We may, in fact, be contributing to the problem ourselves continuing to use agriculture in our terminology such as the title of this session, Careers in Agriculture. It seems it is that word agriculture that turns young people away from entertaining thoughts that there are career opportunities waiting for them in our industry. When young people hear the word agriculture they, yet, only comprehend farming. This really limits an open minded discussion on the careers that are associated with the food industry. There certainly cannot be any more important career to all of us than that of producing our food but it is sometimes difficult in a career counselling session to get beyond the farmer as an idea of what kinds of careers are available to a young person.

FOOD PRODUCTION

The wide range of careers that are available definitely does include on-farm positions. I expect that the numbers of graduates from both our technical and our degree programs at the Nova Scotia Agricultural College would be indicative of similar trends that take place at other schools across the country. There are fewer and fewer farms required in Canada each year to produce our food. There is really no need to be concerned over the diminishing farm numbers in our country. Accepted with that fact is a diminshing requirement for people to be involved on farms assisting with the production of that food. Farmers do have difficulty in recruiting for both seasonal and full-time help but I would like to address that a little further on in my presentation.

THE OPPORTUNITIES ARE "OFF" THE FARM

Over the past few years anywhere from 20 to 35% of each year's graduating class at our school found full-time employment on farms after graduation. It is, however, the careers of the other 65 to 80% of our graduates that we need to be doing a better job of in informing high school students about. It is there, beyond the farm, where the real career opportunities lie.

Studies have long shown that career opportunities have been identified as very good for both technical and professional positions within the agri-food business. In fact, we are now in a period where shortages of people trained for positions in the industry are predicted.

A LACKING CAREER AWARENESS

A 1989 study conducted at our college indicated that careers are the single most important factor in a high school student's choice of a university or college. Grade XII students from 10 Nova Scotia schools and 4 Prince Edward Island schools were surveyed. A good cross section of both urban and rural schools were used for this study and another of its findings were that High School students are almost totally ignorant of the wide variety of career choices in agriculture. Even in Prince Edward Island where 20% of the population are farm based, students could only list, at most, 2 or 3 careers in agriculture and typically they were potato inspector, potato farmer, etc.,i.e. those representing a very limited field of employment.

It is difficult to address career issues with a group of high school students until they have dispelled their misconceptions. As I indicated earlier a student could go from academic studies in Economics and Business Management or Engineering or Computer Science or Journalism and still relate their training in an agricultural career. A student may be interested in Biology, from there you can determine whether they are interested in plants or animals and from there career paths can be explored in either professional or technical fields. It is the opportunity to apply a science to a very practical and worthwhile career that makes the career opportunities so exciting for a young person when they have discovered it.

AN APPLIED SCIENCE: A PRACTICAL EDUCATION

I've seen, too, where it is that applied education that is really providing students studying in the agricultural sciences a real edge in the job market.

That 1989 survey I recently referred to also studied students at our own campus. It found that 40% of the student body currently at the Nova Scotia Agricultural College had come not directly from high school. That is another trend taking place at Canadian Universities and Colleges - a growing mature student population. One of the groups of people that are contributing to that trend on our campus are students who have Bachelors of Science or other general degrees from other universities who come for a year or two in our technical programs, such as Laboratory Technology, to enhance their employability.

Students who have an interest in science and who are currently involved in Bachelor of Science in Agriculture programs in Canada can well attest to the relevance and the advantage that it provides them over general science degree graduates in getting their careers started.

HOW DO WE ATTRACT STUDENTS?

It is interesting now to see the methods through which agricultural colleges and universities are advertising their programs to attract high school students.

In Canada, the Ontario Agricultural College at the University of Guelph is probably the leader in innovative promotion. Excellent examples also can be seen at American schools such as Penn State with very glossy high tech illustrated brochures. A recent University of Guelph publication promoting programs at the Agricultural College only offered a subtle reference to agricultural science on the cover. Even the sections on animal and plant production systems made only an indirect reference to farming as a career option.

Curiously enough, we have recently made the decision to go a similar route at our own institution. This, in no way minimizes the importance that we place on farming as a career.

Based primarily on the results of student surveys, five main areas were identified that young people are interested in today. These five main themes, which now will serve as the basis for high school recruitment programs represent combinations of study areas and with the potential careers I have identified in each of the areas you can see how broad a career spectrum is provided in each of the respective areas.

ENVIRONMENTAL MANAGEMENT

Agricultural Representative
Aquaculturalist
Biochemist
Bioengineer
Botanist
Ecologist
Environmental Control/Conservation Officer
Entomologist
Forestry Nursery Technician
Geologist
Golf Course Superintendent
Greenhouse Manager
Hydrologist
Land Improvement Inspector
Land Use Specialist
Landscape Architect
Organic Chemist
Plant Pathologist
Soils Lab Technician
Waste Treatment Manager

FOOD PRODUCTION & PROCESSING

Ag. Equipment Dealer
Ag. Construction Engineer
Agronomist
Bacteriologist
Cereal Specialist
Certified Seed Grower
Climatologist
Engineer
Farmer
Feed Mill Manager
Fertilizer Plant Manager
Food Chemist
Food Processing Supervisor
Horticulturalist
Laboratory Technologist
Machinist
Meat Inspector
Microbioligist
Plant Breeder
Research Scientist
Quality Control Supervisor
Tissue Culture Lab Technician

BUSINESS MANAGEMENT

Accounting Clerk
Ag. Accountant
Banker
Business Manager
Consultant
Credit Counsellor/Advisor
Crop Insurance Sales
Economist
Farmer/Farm Manager
Farm Appraiser
Farm Management Specialist
Feed and Farm Supple Store Manager
Grain Broker
International Specialist
International Development Worker
Insurance Agent
Investment Manager
Landscape Supervisor
Loan Officer
Marketing Analyst
Public Relations Officer
Sales Representative

WELFARE OF ANIMALS

- Agrologist
- Animal Behaviorist
- Animal Care Attendant
- Animal Health Products Distributor
- Animal Health Technician
- Artificial Breeding Technician
- Dairy Scientist
- Engineer
- Herd Manager
- Marine Biologist
- Milk Tester
- Pet Store Owner/Worker
- Pharmaceutical Sales Representative
- Poultry Scientist
- Research Assistant
- Research Scientist
- Sales Manager
- Veterinarian Assistant
- Veterinarian - Animal Hospital
- Wildlife Park/Zoo Attendant

COMPUTER APPLICATIONS

- Accountant
- Ag. Journalist
- Biostatician
- Cartographer
- Engineer
- Equipment Operator
- Farm Management Supervisor
- Greenhouse Manager
- Hydroponics Grower
- Lab Technician/Supervisor
- Land Planner
- Landscape Designer
- Marketing Specialist
- Meteorological Analyst
- Nutritionist
- Parts Manager
- Planning and Research Analyst
- Product Developer
- Produce Buyer/Wholesaler
- Poultry Hatchery Manager
- Soils and Crop Specialist

CAREER INFORMATION RESOURCES

Once a student has been given the general information and helped to decide in what direction they would like to pursue a career it is important that they are directed well with specific information. This should include the names of people working in the careers that they are interested in.

Local or county offices of the Department of Agriculture and Provincial Institutes of Agrologists are good places to find this information. Teachers should be encouraged to bring to class a range of guest speakers to dispell career misconceptions.

There is a lot of outdated career information material in guidance offices but there is some good resource material available as well. The Canadian Association of Veterinary Medicine have an excellent video on Vet Medicine as a career entitled "Veterinary Medicine in Canada - A CAREER CHOICE". The Canadian Society of Agricultural Engineering and Atlantic Committee on Agricultural Engineering have an excellent video on careers in Agricultural Engineering (Opportunities for Tomorrow). The New Brunswick Institute of Agrologists have an excellent video on professional careers in agriculture and the Agricultural Employment Services through Employment and Immigration Canada produced a video this summer on the on-farm career opportunities.

CHANGING CAREER FIELDS

Students once attended agricultural colleges and universities for the traditional fields of employment - feed sales representatives, farm managers, work with the chemical companies, farm supply retail, farm credit advisory, government extension, work with the farm machinery dealerships, etc. Coincidentally at a time when fewer people are required to supply the employment needs of the supply and service sector because of the reduced farm numbers in

Canada, students are entering studies in the agricultural sciences with different career paths in mind.

The changing agri-food industry has brought about a dramatic change in the careers awaiting today's agricultural graduates.

The modern industry is, as a result, attracting a more cosmopolitan student body to campuses of agricultural schools across the country.

Farmers have, in recent years, demonstrated a real committment to protect the future of those that follow them. Concerns about the environment and the safety of the food they produce can be seen in the changing cultivation practices. Career opportunities are opening up in those career paths. There was a time when graduates of a Crop Protection program were limited to jobs with the chemical fertilizer companies after graduation. A student now enters an Agricultural College with a goal of getting into research into biological control of weeds and other crop pests.

In our survey of students the main issues/concerns of young people today were identified as:

- the environment
- food safety
- and the world food supply situation

All of these topics are included in programs of study at an agricultural college or university. And good career opportunities exist in all areas. Many young people have an interest in working overseas in international development. Study in agriculture provides an excellent foundation for serving in the 3rd world.

Students will regularly use their programs of study in agriculture as stepping stones to other related fields - such as the forest industry and aquaculture.. Appropriate career moves can also easily be made to resource management, wildlife or marine biology, land use planning, the ecology, etc.

In some parts of the country opportunities have been identified as good over the next 5 - 10 years for high school teachers. The B.Sc. (Agr.) serves an excellent foundation degree to a B.Ed. with today's emphasis on the teaching of the resources in the schools. Teachers with agricultural backgrounds find themselves very well prepared for high school science.

CHANGING ON-FARM CAREERS, AS WELL

Certainly all the career opportunities do not lie in professional areas - that's probably where most of the diversity has occured, however. But that is not where all the change has taken place.

The technological advancements and the greater use of computerization and automation in the industry have created a lot of changes in on-farm careers. Farmers have had to change their expectations of their hired staff to enable them to compete for the available labour market. Larger farms are hiring two people to work 40 hours each per week rather than one putting in as many hours as the farm owner.

Farm jobs have taken a bad rap over the years. But I feel farmers have really cleaned up their act. In some areas farm jobs were perceived as long-hours, hard work, dirty working conditions and low pay. And, I grant you that in some cases that may still be the case. But those jobs are in the minority now. One of the biggest areas that has improved is salary. A dairy farm herd manager receives a compensation package that is more than competitive with industry standards today. And it is the total package - which usually includes accomodation, meat, milk and vegetables and in many cases health and safety coverage and a bonus incentive program, along with the salary that is making farm positions attractive these days.

THE FACTS:

So we're back to the reality of the situation. And the fact that what is perceived is actually a lot different from what is fact.

Some of you will have had your impressions confirmed these past few days, others of you will have had fresh new impressions created about our agri-food industry.

Farmers, themselves, have felt the onus of generating agricultural awareness efforts.

Departments of Agriculture and farm organizations now all have committees working to the aim of a more appreciative general public. But after this conference we each now have some responsibility to help tell agriculture's story. It is not just the farmers' problem that young people aren't informed of the career possibilities in the food-industry. Hopefully the misinformation can be corrected by a more aware guidance system in our schools. Certainly it is to the benefit of the young people looking for career guidance if that hapens - and resultingly we'll all benefit because the food system will have its trained human resource supply filled again.

"TODAY'S AGRICULTURE- IT'S MORE THAN YOU EVER IMAGINED"

That's the theme of a recent career publication of the National Future Farmers of America Organization.

And once you recognize that agriculture is a whole lot more than farming it's easy to visualize the career opportunities the industry offers.

Agriculture is a vital profession - after all, there's probably no more important business than that of food production. The largest single industry in Canada naturally provides special career challenges for agricultural students.

The FFA brochure lists over 200 rewarding and challenging careers today's agriculture represents. Here's a sample list for your reference purposes:

Ag Accountant
Ag. Chemical Dealer
Ag. Equipment Dealer

Ag. Construction Engineer
Ag. Equipment Designer
Agronomist
Animal Geneticist
Animal Nutritionist
Animal Physiologist
Animal Scientist
Ag. Association Executive
Ag. Consultant
Ag. Economist
Ag. Educator
Agricultural Representative
Ag. Journalist
Auctioneer
Beekeeper
Butcher
Animal Behaviorist
Animal Health Products Distributor
Artificial Breeding Technician
Bacteriologist
Biochemist
Bioengineer
Biophysicist
Botanist
Biostatician
Horticulturist
Hydrologist
Hydroponics Grower
Hydraulic Engineer
Irrigation Engineer
International Specialist
International Development Worker
Investment Manager
Landscape Architect
Landscaper
Land Surveyor
Land Use Specialist
Lab Technician
Loan Officer
Marketing Analyst
Meat Inspector

Meat Cutter
Milk Plant Supervisor
Machinist
Meteorological Analyst
Nursery Operator
Plant Breeder

Climatologist
Cattle Rancher/Buyer
Computer Analyst/Operator
Programmer/Salesperson
Certified Seed Grower
Dairy Farmer/Herdsworker/Special
Diesel Mechanic
Draftsman
Ecologist
Environmental Conservation Officer
Equipment Operator
Entomologist
4-H/Youth Worker/Rep./Specials
Farm Appraiser
Farm Broadcaster
Farmer/Farm Manager
Florist/Floral Designer
Farrier
Feed Mill Opertor
Fertilizer Plant Supervisor
Food Processing Supervisor
Food Chemist
Golf Course Superintendent
Greenhouse Manager
Greenskeeper
Grain Broker
Grain Elevator Operator
Geologist
Plant Cytologist
Plant Ecologist
Plant Geneticist
Plant Nutrionist
Plant Pathologist
Plant Taxonomist
Pomologist
Poultry Scientist
Quality Control Supervisor
Research Engineer
Research Technician
Rural Sociologist
Safety Inspector
Sales Manager
Scientific Writer
Service Technician
Soils Specialist/Conservation
/Engineer/Scientist
Soils and Crops Specialist
Veterinarian Assistant
Vet Pathologist
Winery Supervisor
Water Resources Manager
Welder

Photographer
Public Relations Manager
Produce Buyer Wholesaler
Parts Manager
Pest Control Technician
Poultry Hatchery Manager
Organic Chemist

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SCIENCE, TECHNOLOGY AND SOCIETY

Yvan Jacques

Mr. Chairman. You have handed me quite a challenge. Here we are almost at the end of a very full and very interesting three-day discussion on a very important and thought-provoking subject. And here I am, the last speaker before we try to pull all the threads together after coffee break. At some conferences, by this point in the program it is a challenge just keeping the audience awake. I know that is not the case with this interesting subject. But if I blow a whistle from time to time or rattle the microphone, you will know it is just to make sure that you are all wide awake and that your minds are still in gear.

On the other hand, you have given me the most interesting and exciting topic: The Role of Science and Technology in Agriculture. So I can't complain.

I am sure everyone here is well aware of the new high-tech nature of modern agriculture. There are lots of old jokes still going around that depict agriculture as a job that requires brawn but no brains and that depicts farmers as slow and backward. The jokes persist, but the reality has long moved on. Farmers, of course, never were slow and backward. It was just that city folk were slow and backward in realizing that farmers don't punch time clocks or work a 37 and a half hour week. Mother Nature has her own clock and she is the boss.

Certainly there are no slow and backward farmers making a living in agriculture today. If today's farmer is not well educated, computer literate and market oriented, he probably isn't making any money.

There are still countries in the world where 75 to 80 percent of the population live in rural areas and work in the fields. And most of those countries are not growing enough to feed all their population. That is what it was like in Canada a hundred years ago - clearing land with an axe and a grub-hoe, trudging all day guiding a wooden plough behind a team of horses or oxen, swinging a scythe to bring in the harvest. It was tough, back-breaking work.

But not today. Today less that five percent of Canadians are involved in the on-farm, primary production of food. They spend more time at the computer keyboard than they do in the barn; and if they plough at all (which fewer and fewer are doing), it is from the air-conditioned cab of a four-wheel-drive tractor with an eight- or ten-furrow steel plough on the back.

The farm gate value of crops produced in Canada is more than $20 billion a year, but that is just the beginning of the agri-food industry. It is an important beginning, mind you. An essential beginning. Without the farmer, there is no agri-food industry. And even when your cows are getting their energy ration from a computer-controlled dispenser and when you are analyzing the nutrient content of your soil with scientific equipment, there is still something about working with Mother Nature that appeals to many people.

When you think of agriculture, you probably think of farming. But before Canadian farmers actually begin their work, hundreds of thousands of people have already conducted research, built farm machinery and developed and tested fertilizers and pesticides. After the products leave the farm gate, many more people become involved in grading, inspection, transportation, processing and marketing.

So that $20 billion worth of grain, fruit, vegetables, dairy products and livestock is just the raw product for a $50 billion plus industry that employs one in every four Canadians, accounts for 25 percent of Gross National Product and 10 percent of our exports. Canadians spend more than $32 billion a year at the food store. George Weston, Provigo, the Canadian Wheat Board, Steinbergs, Canada Safeway, The Oshawa Group and Canada Packers are among the 40 largest corporations in Canada.

Who works in the agri-food industry?

- The girl at the checkout counter in the supermarket who rings up your food bill by sliding those funny little labels over an optical reader;
- The maitre d' in his tuxedo who shows you to your table when you take your spouse out for a high class dinner;
- The truck driver who drives all night with a load of New Brunswick potatoes for the Toronto market;
- The plant breeder who develops rust resistant varieties of wheat, oats and barley;
- The biotechnologist who synthesizes hormones to develop a safe pesticide or vaccine;
- The commercial artist who designs those mouth-watering ads on TV that make us rush out to buy a Harvey's burger;
- The market analyst who figures out that today's consumer is more likely to buy a package with two pork chops than one with three or four.

It is all that and more.

In passing, many of the more important and rewarding jobs in agriculture are performed by graduates of Canada's faculties and colleges of agriculture. Some are engaged in highly sophisticated research in such fields as genetics or chemistry. Others are teachers and professors, or work as agricultural advisors, veterinarians or administrators. Some are agricultural journalists for newspapers, magazines, radio3and television. Many travel abroad, helping poorer countries increase their food production. The variety of occupations is almost limitless.

The demand for graduates in agriculture continues to grow along with that for food. Canadian food production is expected to accelerate in coming years and we'll need qualified graduates to provide the know-how; those with Bachelor's, Master's, and Doctoral degrees will all be wanted. Canada now supplies less than half of the Ph.D's employed in this field. When qualified candidates cannot be found in Canada, trained people from other countries fill available positions.

Professional agrologists and scientists today are confronted with many highly diversified problems including issues such as animal welfare.

Now, moral questions are beginning to be applied to animal agriculture. Critics are questionning traditional practices like confinement, branding, dehorning and castration. The animal scientists have to meet these questions directly, providing not only scientific and economic statistics, but also straight-forward discussion of moral issues.

In some cases, the industry will have to change its practices, even if such changes require extra costs to producers and consumers.

Needless to say that to meet the basic academic requirements to become a professional agrologist or scientist today, we need to attract more smart people because agriculture has become so high-tech.

We have to keep attracting the brains that will be good researchers and good managers. We need creative talent to cope with the numerous challenges we hope to meet today and into the 21st century.

Agriculture today is a big business and the competition is tough. It is a particularly important business for Canada.

The single most important factor that makes the difference between countries where agriculture is still a labour-intensive, subsistence business, and countries where agriculture is a high-tech industry, is education. It is true that Canada is blessed with many natural resources but the most important thing is that we have developed our human resources.

It goes without say, of course, that the development of human resources requires a free media and a democratic government. In its pioneer days, Canada was blessed with people who had a passion for freedom and a passion for education.

It is hard for people today to imagine what society would be like in Canada if 75 percent of the people had to work in the fields just to raise enough food to survive.

The reason we enjoy the standard of living and the quality of life we have today in this country is because of the advances of science and technology--the natural outgrowth of advanced education. And nowhere is that more evident than in the field of food production. I am delighted that the education system has taken on to promote agriculture in the classroom and the Agricultural Institute of Canada is proud to be part of it. As the organization representing 8,000 agrologists and scientists across Canada since 1920, we have been pressing for years for more emphasis and more spending on agricultural educaiton and research.

If the application of new technology causes problems (and it sometimes does), then the answer is not less technology but more technology. Recently we have begun to see some unfortunate side effects of some of our agricultural technology.

In pushing for maximum production, we have not paid enough attention to what was happening to our water and soil resources, nor to some of the long-term implications of extensive chemical use in animals and humans.

But when people say we must get back to organic farming, they don't really mean "back", they mean "ahead". Low-input, conservation farming is the challenge of the future. It won't be solved by going back. You can't hand-weed 10 million hectares of wheat. You can't attack an infestation of grasshoppers with a fly swatter.

Environmentally sustainable farming is a challenge to agrologists and scientists. It is a challenge to the biotechnologist to find new ways of protecting crops that don't leave toxic residues behind; a challenge to the plant breeder to develop hardy, disease resistant varieties; a challenge to the engineer to design equipment that can cultivate crops without exposing the soil to water and wind erosion; a challenge to the farmer to adapt new methods.

And, if I may say so, a multiple challenge to governments and all the agri-food players:

- A challenge to make the resources available to train the scientists we need to take on those tasks.

- A challenge to make the resources available for them to do the research and development after they have been trained;

- A challenge to establish a policy framework in which the agri-food industry can operate with an assurance of stability.

There is little to be gained by teaching agriculture in the classroom if the students find that they graduate into a climate of stagnation and under-investment. Why would you encourage students to consider Agriculture careers if they can't find places for advanced education, if there is no funding for research and if the whole industry is mired in a swamp of debt?

I don't say that to be negative, just to be realistic. We won't do our young people any favour by promoting agricultural education if we don't recognize that one of the biggest problems facing agriculture today is a negative image.

Here I would like to quote from an article written by one of our members, Dr. Charles J. Bishop, P.Ag., commenting on and summarizing a workshop on public awareness of science sponsored by the Royal Society of Canada last spring:

> "Science and technology is heading for a severe crisis in North America. Based on estimates for the United States and assuming Canada is similar, we can expect a deficit of about 50,000 scientists and engineers at the beginning of the 21st century.
>
> "This deficit is due to several causes: The so-called 'baby bust', the decline in governmental support of education and the increasingly negative public image of science. This last factor should not be underestimated. Why should young people devote their lives to science if they are continually told that science is dull, lacks prestige and is responsible for many of the current global problems? Why should they contemplate a scientific career if they are exhorted to seek wealth and power rather than knowledge and service? Why should they undergo a long and exacting training if they can make good and fast money?
>
> "Fortunately, we have the means to avert this threat of scientific and technological decadence. We can prepare for peace and thus liberate huge material and human resources for social expenditures. We can improve the support of basic science. We can improve science education by recruiting science teachers from science programs. We can improve the quality of textbooks and science coverage in the media by involving scientists in science education and its popularization."

Problems, of course, are just opportunities. Solving problems is what education is all about. Let us just be sure that when we teach Agriculture in the classroom, we cover all aspects of the subject -- the sociological and political aspects as well as the technical.

The theme you gave me was "Science, Technology and Society". One of the biggest problems facing agriculture today is that we have put a lot of emphasis on science and technology and not enough on society. We have pushed for increased production without considering the impact on the quality of life of the farm family.

There is an old wartime joke about the young recruit on the rifle range. When the officer asks him how he is doing, he replies, "I don't know, Sir, but they are sure leaving here with a hell of a bang".

That describes our attitude to agriculture. As long as we were getting a bang out of production, we were satisfied. Now we find that, despite record production, there are a lot of unsatisfied people around: people over their head in debt, people cracking under stress, people concerned about polluted soil and water, people concerned about food safety, people concerned about international trade barriers, etc.

So when we come back after coffee to "pull it all together", we want to make sure that our education system produces graduates who have a realistic knowledge of agriculture and a commitment to give the industry the kind of leadership it needs.

NORMAND LÉGER

"Pulling it all together: Our Commitment to Agriculture in the Classroom"

The New Brunswick Department of Agriculture is committed to increasing agricultural awareness in this province.

A reorganization of the department was done in April of this year to reflect this commitment, forming a new Communications and Education Branch. A provincial awareness supervisor was recently hired to work with the Department of Education representatives in order to develop curriculum and programs to teach our young people about agriculture in the classroom. A number of lesson plans from grades 1 to 6 are ready for distribution. We hope to have lesson plans developed for all grades in the coming year.

To promote our provincial agriculture awareness week, which is next week, we have sent a Resource Guide to all schools in the province containing valuable information. We are encouraging schools to organize student visits to a farm during the week or to invite a producer to their classroom for a question and answer session. Teachers can initiate agricultural type projects with their students, such as planting flowers or vegetables.

We also are developing material for young people to consider agricultural careers after grade 12. A number of interesting careers exist in this field, but young people do not always think of them as challenging or interesting. We have to work on attitudes and the image of the producer to interest more people in this field. An agricultural awareness program in the schools will eventually have a positive effect on our young people and agriculture will greatly benefit from these people, both in the research and in the production.

We still have a lot of work to do, but people have been working on this subject for a number of years. We need to act now and get the cooperation of all concerned in order to ensure we will continue to have people to produce quality food for our plates for the years to come.

Thank you.

SUMMARY OF PRESENTATION
TO THE
AGRICULTURE IN THE CLASSROOM CONFERENCE

KEITH RUSSELL

The agriculture industry in Atlantic Canada is a major contributor to the economic life of this region, and there's lots of room for it to grow and expand. The farming sector, plus the secondary industries engaged in providing production inputs, food processing, transportation, etc., creates 45 - 50,000 jobs in Atlantic Canada. During the 1980's, the industry grew by 35%. It can continue to grow at this rate, given a positive economic and social environment.

An adequate social environment requires that the general public have a positive attitude and understanding of the agricultural industry. The development of a positive attitude needs to start in the public schools.

An Agriculture Awareness Committee, representing the Atlantic Farmers Council and the Institutes of Agrologists, has produced a 20 minute video-tape and Guide to supplement the Maritime Studies course, and is promoting one-day in-service workshops on Agriculture for Maritime Studies Teachers. The Committee is prepared to assist with other initiatives to increase agricultural awareness in the school system.

PULLING IT ALL TOGETHER

Our Commitment to Agriculture in the Classroom

Keith Russell

Thank-you, Mr. Chairman.

During these next few minutes, I want to communicate three basic ideas that I hope you'll take home with you.

1. The Agriculture Industry in Atlantic Canada is a major contributor to the economic life of this region, and there's lots of room for it to grow and expand.

2. In order for its growth to continue into the next century, we need to develop a thorough public understanding and a positive attitude about the business of farming, and one of the best places to start generating this understanding and attitude is within the public school system.

3. During the past several years, the Atlantic Farmers Council and the Provincial Agrologists Institutes have made a fairly significant contribution toward agriculture in the classroom, and we'd like to be doing more.

Those are the three basic ideas that I want to leave with you.

In order to expand on them a bit, I'd like to start with a verbal snapshot of the Agriculture industry in our Region to try to show you what it looks like right now.

Atlantic Canada currently produces about 5% of Canada's total agricultural output, and we have about 5% of Canada's farms. This is not a very impressive proportion of the national total, but it's very important to those of us who are engaged in the agricultural industry, and it's important to the economy of the Atlantic Region. The primary farming industry, plus all of the secondary industries which serve it: - the feed mills, the fertilizer plants, the farm equipment dealers, the dairies and other food processing industries, transportation, and so on; collectively they account for between 45 and 50 thousand commercial jobs. That's the commercial jobs. It doesn't include the jobs created by Governments: - the Departments of Agriculture, agricultural education institutions, and other government departments and agencies which have agricultural responsibilities.

These 45 - 50 thousand commercial jobs are generated by about 5,000 medium to large-scale farms in Atlantic Canada. We have an additional 5 - 10 thousand part-time or small-scale farms in the Atlantic Provinces, and these small-scale operations make an important contribution to the social and economic fabric of the communities in which they are located, but they don't make a very significant contribution to our Total Gross Regional Agricultural Product. It's the 5,000 full-scale commercial farm operations which create most of the demand for feed, seed, fertilizer, and other farm supplies and services; and which create most of the raw material which is graded and processed and packaged and transported for sale by the wholesale-retail food trade.

In 1989 in Atlantic Canada, we produced about 850 million dollars worth of farm products. About 35% of this was produced in Nova Scotia, 30% in New Brunswick, 28% in Prince Edward Island, and 7% in Newfoundland.

Taking the Atlantic Region as a whole, we are essentially self-sufficient in red meats: - beef, pork, and lamb. We're big exporters of horticultural products: - potatoes, blueberries, and apples, both fresh and processed; but we don't export enough of these to offset the food products that we import into Atlantic Canada each year.

During the 1980's, in spite of very high interest rates during the early years of the decade, market fluctuations, a couple of wet summers, and one abnormally dry growing season, the production of agricultural products in Atlantic Canada increased by 35%. If we can continue to expand at that rate, we will double the size of our production in 22-23 years. That would create an additional badly-needed 15-20 thousand new jobs.

We certainly have enough land in the Atlantic region to increase our agricultural production many times over. We have about 6 and one half million acres of potential farm land in Atlantic Canada in blocks which are large enough for commercial use, and we're only farming about one-fifth of that area. Some of the remaining four-fifths is occupied by urban communities, some of it is being used for highways, and some of it is former farm land that's been allowed to grow up in alder bushes and spruce trees. Most of our potential farm land, however, has never been cleared.

In addition to the 6 1/2 millions acres that I've already mentioned, there's an estimated 3 million acres of high bog land in Newfoundland that could be drained and farmed, if this should ever become necessary.

In the meantime, we could double our production on the land that's already being farmed, plus land that was farmed one time but is now idle, without clearing much new acreage.

We also have most of the secondary commercial infrastructure already in place that would be needed to serve an agricultural industry twice as large as what we have now. And we have a market for at least part of that extra production right here in the Atlantic Region.

In order for this doubling of our agricultural industry over the next 20 years to actually take place, and for these extra 15-20 thousand jobs to be created, we need an economic and social environment that will encourage our five thousand owner-operators and their successors to continue and to expand. These are the key. These are the people who generate nearly all of the economic activity.

When we say that we need an encouraging social environment for agriculture, what we mean is that we need the general public to have a thorough understanding of how the agriculture industry operates, the contribution that it makes to our economy and society, and the particular problems and opportunities that it faces. We believe that a better understanding would lead to a more positive attitude about agriculture. Young people and their parents and guidance counsellors would tend to look more favourably on farming or one of the agri-business occupations as a career choice. Tax-payers would tend to be more sympathetic when the agricultural industry needs government support.

In achieving this more positive attitude, we need to present a more positive conception of the agricultural industry.

1. Producing and processing food products for human consumption is one of the most basic and necessary vocations that one can choose.

2. The wages and salaries that are paid to employees on most farms and agribusiness firms these days compare very favourably with non-agricultural businesses and industries.

3. Agriculture is a challenging and interesting career, with lots of variety. Food production has become a high-tech business.

4. Farmers are not 'kept' by governments. They receive support to help with developmental projects, the same as most other industries; and they require government assistance toward stabilization programs to provide themselves with partial protection against adverse weather and market conditions over which they have no control.

5. Consumers pay a lower percentage of their wages and salaries for food in Canada than in any other country in the world, except the United States.

6. The food industry has become very efficient. The price of food over the past twenty-five years has increased at a much lower rate than the price of housing, clothing, automobiles, dental care, and most other consumer goods and services.

And so on.

I'm sure that I don't need to remind anyone who is here that the development of our individual attitudes starts at an early age, at home and at school.

Recognizing this fact, the Atlantic Farmers Council, in co-operation with the provincial institutes of Agrologists in our Region, several years ago formed an Agriculture Awareness Committee to address that situation both in the schools and with the general public.

Three years ago, coincident with the introduction of the Maritime Studies for Grades 9 & 10, we produced a 20 minute video-tape entitled "Farming is Everybody's Business", and a Teacher's Guide, to be used as a supplement. This material was made available in both languages to the three Maritime Departments of Education for distribution to the schools in their Provinces.

Two years ago, the Nova Scotia Institute of Agrologists conducted a study of several school in Nova Scotia, and found a considerable variation in the attention that was being given to agriculture by Maritime Studies teachers, depending on the individual teacher's personal knowledge and interest in Agriculture and the community in which the school was located. This situation prompted us to encourage our provincial Social Studies Consultants to organize in-service training workshops on Agriculture for all Maritime Studies teachers. Our Committee members are prepared to assist with the planning of such a workshop, and providing resource people and information. On Prince Edward Island last October, a very successful one day event was held, and we're hoping that it will be the first of several similar training events throughout the Region. We believe that every teacher involved with the Maritime Studies course should have an opportunity to participate in an agricultural workshop.

Apart from Maritime Studies, there are of course other subject areas and other grade levels where agricultural information can be introduced by a well-informed teacher, or perhaps by inviting a farmer or professional agriculturalist to come to the classroom to give a short talk and then respond to questions and comments. We would welcome the opportunity to assist with this process in any way that we can. We have a broad range of contacts among farmers, agribusiness managers, and Departments of Agriculture; most of whom would be quite ready to accept an invitation, given sufficient notice.

In brief, Mr. Chairman, we're very serious about the matter of agricultural awareness in our public school system, we're quite pleased with the reception which our efforts have received so far, and we're eager to do more. Just ask us.

Thank you.

Agriculture
in the classroom
dans la salle de classe

MISCELLANEOUS MATERIALS & INFORMATION

MATÉRIEL D'INFORMATION

New Brunswick Department of Agriculture • Ministère de l'Agriculture du Nouveau-Brunswick
C.P./P.O. BOX 6000 • FREDERICTON • NEW BRUNSWICK/NOUVEAU-BRUNSWICK • E3B 5H1 • TEL. (506) 453-2759 • FAX. (506) 453-7170

OCTOBER 14 - 16, 1990 • DU 14 AU 16 OCTOBRE 1990

Conférence nationale à St-Jean

Fredericton (CNB) - La troisième Conférence nationale sur l'agriculture dans la salle de classe se tiendra au Nouveau-Brunswick.

Le ministre de l'Agriculture, Alan Graham, a annoncé récemment que son ministère, ainsi que les ministères de l'Education et de l'Enseignement supérieur et de la Formation, seront les hôtes de cette conférence qui aura lieu à l'automne, à Saint John.

«Je suis heureux que nous ayons été choisis comme hôtes de cette importante conférence qui vise à sensibiliser la population, à favoriser une meilleure compréhension des questions importantes de l'agriculture, et à expliquer, à l'intérieur du système scolaire, l'importance de l'enseignement agricole, a déclaré le Ministre. Les ministères de l'Education et celui de l'Enseignement supérieur et de la Formation collaborent d'ailleurs avec nous.»

Plus de 200 délégués participeront à la conférence. Parmi eux, des enseignants, des représentants des conseils scolaires, des membres du personnel des collèges communautaires, des représentants des organismes agricoles et du secteur agricole et des employés du gouvernement.

La conférence est intitulée "Cultiver notre avenir", et aura lieu au Brunswick Delta Hotel du 13 au 16 octobre prochain. On accueillera des conférenciers et des animateurs d'ateliers provenant de partout au Canada et des Etats-Unis.

«Tout en nous préparant pour la prochaine décennie, il est nécessaire d'informer les futurs consommateurs du rôle que joue l'agriculture dans l'économie, a ajouté le Ministre. La communauté agricole a besoin du soutien d'un public bien informé qui connait les étapes de la production des aliments. Cette conférence donnera aux éducateurs les outils dont ils ont besoin pour bien faire comprendre que l'agriculture est une partie importante de l'économie nationale et provinciale.»

Un certain nombre de sujets seront traités lors de la conférence de trois jours, dont l'enseignement de l'agriculture dans la salle de classe en Amérique du Nord, l'enseignement des enfants à la ferme, l'intégration de l'agriculture dans le programme scolaire et la planification de la formation des enseignants.

Agriculture In The Classroom

A conference on this matter will be held October 14-16 in Saint John, aimed at increasing the visibility and understanding of agriculture in the educational system.

Delegates will include teachers, school board representatives, Department of Education and Agriculture personnel, college faculty staff, agricultre and industry participants and farm organizations.

On Sunday, Oct. 14, at the banquet and official opening, the speaker will be the Hon. Alan Graham, NB Minister of Agriculture. Also taking part in the opening will be town crier of Saint John, Harold Williams ... Mayor Elsie Wayne; the Hon. Russell King, NB Minister of Advanced Education and training.

Guest speaker at the closing luncheon Tueday, Oct. 16 will be the Hon. Shirley Dysart, NB Minister of Education.

Speakers throughout the conference include those from Alberta, Ontario, Quebec, Nova Scotia, Washington, British Columbia, Vermont,Saskatchewan, University of Maine, Margaret McCain who is chancellor of Mount Allison University.

Farming goes to school

by Steve Wharry
Student Editor
Communications Branch, Ottawa

Some school children think that milk is made in a factory, like Kool-Aid.

Others know that milk comes from cows, but believe that the milk bought in the store is "different" from that produced by dairy cattle.

Joyce Ferguson, coordinator of the third annual Agriculture in the Classroom conference October 14-16 in St. John, N.B. says the problem of students knowing little about farming is becoming more and more widespread.

"Many children are three or four generations removed from the farm," says Ms Ferguson. "It used to be that almost everyone had a relative who lived on a farm."

Agriculture in the Classroom is a movement that was started in the early 1980s by farmers and marketers to educate students on farming and farm life.

It has grown into a continent-wide organization in just 10 years, with chapters in eight provinces and strong representation in 46 U.S. states. Its goal: to get more agriculture built into school curricula so that students have a better appreciation about farm life.

The conference objective is to examine existing programs in North America that teach agricultural concerns in the classroom and devise new programs for use in schools.

Ian Willsher, of Agricultural Development Branch and the federal government's liaison with provincial groups, says it is important to remember that farming is a fundamental part of everyone's life.

"What we want is for the children and their families to appreciate that agriculture is one of the most important industries in the world because few things we encounter in our lives are more basic than food," said Mr. Willsher.

Anyone interested in attending the conference should contact **Joyce Ferguson** at (506) 453-5475 or **Peter Rogers** at (506) 453-2759.

L'agriculture à l'école

par Steve Wharry
rédacteur stagiaire
Communications, Ottawa

Certains écoliers pensent que le lait est fabriqué en usine, un peu comme le Kool-Aid.

D'autres savent que le lait provient des vaches, mais croient que le lait acheté au magasin est "différent" de celui que produisent les bovins laitiers.

Selon **Joyce Ferguson**, coordonnatrice de la troisième conférence annuelle sur l'**Agriculture à l'école** qui se déroulera du 14 au 16 octobre à Saint-John (N.-B.), de plus en plus d'étudiants ignorent à peu près tout de l'agriculture.

"Il fut un temps où presque tout le monde avait un proche qui vivait à la ferme. Aujourd'hui, trois ou même quatre générations séparent bon nombre d'enfants du milieu agricole", explique M^{me} Ferguson.

L'Agriculture à l'école est un mouvement que des agriculteurs et des commerçants ont lancé au début des années 1980 pour informer les étudiants sur l'agriculture et la vie rurale.

En 10 ans à peine, le mouvement est devenu une organisation d'envergure continentale avec des racines dans huit provinces et une forte representation dans 46 États américains. Son but : incorporer plus de matière agricole dans les programmes scolaires afin de mieux faire connaître la vie rurale aux étudiants.

L'objectif de la conférence consiste à examiner les programmes d'études nord-américains qui traitent déjà de questions agricoles et à élaborer de nouveaux programmes pour les écoles.

Ian Willsher, employé à la Dg du développement agricole et agent de liaison du gouvernement fédéral auprès des groupes provinciaux, souligne que l'agriculture est une dimension essentielle de la vie de chacun.

"Nous voulons sensibiliser les enfants et leur famille au fait que l'agriculture est l'une des plus importantes industries au monde. En fait, il y a peu de choses qui soient aussi indispensables à notre survie que la nourriture", rappelle-t-il.

Les personnes qui veulent assister à la conférence doivent communiquer avec **Joyce Ferguson** au (506) 453-5475 ou avec **Peter Rogers** au (506) 453-2759.

A PROPOSAL

FOR

THE FIRST NATIONAL
"AGRICULTURE IN THE CLASSROOM"
CONFERENCE

Prepared by the NATIONAL CONFERENCE COMMITTEE
Southwestern Ontario Regional Women for the support of Agriculture

AGRICULTURE IN THE CLASSROOM

INTRODUCTION

Agriculture is important to all of us. It reflects directly on our lives, by providing us with our food, clothing, and shelter. Indirectly, it makes a major contribution to the economy of our country and to international trade. However, the pervasive importance of agriculture, is rarely understood by the public, including students and their teachers.

People in agri-business want to inform educators and students about the nature and problems of agriculture. At the same time, many school administrators need to build support for their programs in the face of declining enrolments and shrinking budgets. A discussion of agriculture's needs, on one hand, and the problems of the educational sector, on the other, might well lead to co-operative efforts, which would be beneficial to both groups.

Since the constitutional responsibility for education rests with the provinces, it is reasonable to initiate any action at that level. This, in turn, would lead to a national program. Furthermore, efforts that originate within the local community, are more likely to result in co-operation and better working relations, between people in agriculture and educators, as well as having better information, about a particular community's needs in both sectors.

Whichever area is your main interest, you can help initiate better communication between agriculture and the general public, by supporting an "Agriculture in the Classroom" program.

RATIONALE

Agriculture is the foundation of human life.

How food and fibre are produced and distributed has affected the development of mankind for thousands of years. Because agriculture is so closely related to the way we live, an understanding of how it works can be readily incorporated into an understanding of all subjects studied in our educational system.

Canadian agriculture affects all of us, as consumers, and citizens. As consumers, 15 percent of our disposable income is spent on food. The agricultural sector provides employment for one out of every four people in our province. In our country, the 3 percent of the population who are farmers, feed the other 97 percent of our population, as well as many millions of people around the world.

Public policy issues exist which affect the well being of Canadian agriculture, and consequently, the well being of every Canadian. These include: (a) Are we running out of farm land? (b) Do we have enough clean water? (c) Is current scientific research adequate for the growing world-wide demand for food? (d) What responsibility does Canada have to feed the world? (e) What responsibility does Canada have toward our agri-food sector?

A thorough understanding of the interdependence of Canadian Agriculture with the rest of our economy, will provide a sound basis for the decisions that must be made on these and other public issues. This understanding must be gained from our educational system before graduation from high school.

HISTORY

In 1983, delegates from Middlesex County, and the Ontario Ministry of Agriculture and Food attended a "National Agriculture in the Classroom" convention, in Washington, D. C. They came back with all kinds of enthusiasm and many ideas, as to how what they saw could work in their community. The members of Middlesex, have consequently achieved a great deal.

First, they designed a puppet kit complete with tapes, called "The Fairfield Family Hay Ride" kit. These puppets became the backbone of four resource kits which Middlesex Women for the Support of Agriculture completed for the use of county schools. They contain the large puppets, small felt puppets, audio cassette, felt figures, script, teaching strategies, colouring book and toy farm machinery.

The Middlesex "Agriculture in the Classroom" committee followed this up with a professional development day for teachers. The day was designed around a grade three course already in place, in the Middlesex curriculum. They also put a large display into the Ontario Children's Museum, in London, Ontario. During the period the display was open, many thousands of children saw and used the display.

After these successes, they followed through on their mandate to aid other interested county groups, and set up a program suitable for their area. This is how Perth County became involved in "Agriculture in the Classroom".

It has since spread to other areas around us, first to Oxford County where they just finished a Professional Development Day, and now Elgin County (our newest member in the Region) is having a first "Agriculture in the Classroom" meeting November 7, 1985, to introduce their area to the program.

Middlesex County has since received many requests for their Fairfield Family Hay Ride kit. They have made this kit available, at cost to any interested teacher, county group, or other organizations wishing to begin a program. They have received requests for the kit from other areas of the province and from other provinces across Canada.

Therefore, we conclude, there is sufficient interest across Canada, that a National Convention for Agriculture in the Classroom would be well attended by representatives from across the country. We would hope we have a good attendance from the provincial ministries as well, because this would be their opportunity to learn as well as question. Thus, we hope a nation wide network for "Agriculture in the Classroom" would be established.

OBJECTIVES

THE FIRST NATIONAL AGRICULTURE IN THE CLASSROOM CONFERENCE will have specific goals, which we hope to achieve. They are:

(1) To bring together, educators, agri-businesses, government agencies, and agricultural organizations.

(2) To facilitate the training and leadership development of volunteers from the rural community, in order to educate consumers about the importance of agriculture to the economy and our society.

(3) To share current resources available with educators (educators: any informed volunteer with specialized knowledge to share, teachers, any education committee or co-ordinator affiliated with an organization, consultants, etc.).

(4) To motivate the development of new resource materials for Agriculture in the Classroom.

(5) To foster a feeling of national cohesiveness, at all levels, about the Agriculture in the Classroom program.

(6) To inform conference participants about the career opportunities available in the agri-food chain for both rural and urban youth.

Agriculture in the Classroom

Second National Conference

OCTOBER 17 - 19, 1988
Ramada Renaissance Hotel
Saskatoon, Saskatchewan

Why a Second National Agriculture in the Classroom Conference?

As Canadians become increasingly urban, and further removed from the farm, do students understand the agriculture and food industry?

Do our young people know that milk comes from a cow, pork from a pig and bread from wheat?

Are students going to realize the significance and responsibility of growing up in a country that has traditionally been the food basket of the world?

Will our brightest young people be attracted to careers in the agriculture and food industry?

Do we run the risk of driving a wedge between urban Canadians and rural Canadians?

Will tomorrow's voters and decision-makers make informed agricultural decisions?

Why Agriculture in the Classroom?

Here's what others have said:

"We are in danger of having a generation of young people who are agriculturally illiterate" - Lorne Hepworth, Saskatchewan Education Minister

"You are a partner in agriculture - possibly the most important partner - the consumer. And whether you are from the farm or city it is important to recognize this" - Classroom Agriculture Program, Alberta

"A discussion of agriculture's needs, on one hand, and the problems of the educational sector, on the other, might well lead to cooperative efforts which would be beneficial to all" - Southwestern Ontario Regional Women for the Support of Agriculture

"After nearly two decades of neglect, we finally have an opportunity to take our message into the nation's classrooms" - Jack Riddell, Ontario Minister of Agriculture

"If government aids the auto industry the media sees that as a wise use of taxpayers' money - but if they invest a billion dollars in agriculture that's seen as another handout" - Freeman McEwan, Dean of the Ontario Agriculture College.

"It is the attitude of city folks towards farmers that really scares me. They don't seem to have one. An attitude I mean. Near as I can make out, city people just don't think about farm people much at all. Why should they? Food in the city is cheap and plentiful. It comes to corner stores and supermarkets squeaky clean, graded and neatly wrapped, freshly picked, or fresh frozen, sliced, diced and ready for the table. Just heat and serve." - Arthur Black, Ontario Living, April, 1987

Objectives of the first Conference

It is because of these questions that the idea of a National Agriculture in the Classroom Conference came to be. The organizers of the first conference made it clear that one of their main objectives was to build a bridge between agri-business and educators. As the National Conference Committee of the Southwestern Ontario Regional Women for the Support of Agriculture state in their proposal for the first conference:

"People in agri-business want to inform educators and students about the nature and problems of agriculture. At the same time, many school administrators need to build support for their programs in the face of declining enrollments and shrinking budgets. A discussion of agriculture's needs, on one hand, and the problems of the educational sector, on the other, might well lead to cooperative efforts, which would be beneficial to both groups."

The first step was taken in London, Ontario toward bringing agri-business, educators and government personnel together to discuss agriculture in the classroom. There was a sharing of resources and a national network began to form.

Objectives of Second National Conference

The Second National Agriculture in the Classroom Conference will take the A.I.T.C. movement one step further. This conference aims to increase awareness and appreciation of our broadbased agricultural industry by:

- sharing information about programs and resources related to agriculture in the classroom program
- discussing the next step in implementing agriculture in the classroom programs.

What's in it for You?

For the delegates from the first conference, this conference will bring you up to date on what is happening across Canada. It will give you some guidance on how to improve and expand your existing A.I.T.C. program. And more important, you will get the support you need to continue A.I.T.C. activities by meeting fellow delegates.

If this is your first conference, you will become familiar with the reasons for A.I.T.C. activities in Canada. If you are an educator, you will have the chance to talk to people in the industry about how you can bring agriculture into your classroom. If you are from industry, take the time to talk to educators so you will know the restraints and restrictions teachers often face in the classroom when they implement new material.

For all delegates, it is the chance to discuss a problem that is not going away. It is a chance to find out what the rest of the country is doing. And it is time to find out how you can help.

Agriculture
in the classroom

CONNECTIONS

MAY 1990

EDITORIAL

This is the 2nd AITC National Newsletter. The purpose of this newsletter is to provide a communications link between all the various regional and provincial "Agriculture in the Classroom" (AITC) programs that exist across Canada. By sharing ideas, including the status of the various AITC programs and the availability of resource material, we can avoid the duplication of resources. A special thank you is extended to all the provincial AITC programs who have contributed information to this edition of the newsletter.

It is with mixed emotions that we have learned of the departure of Sharon Nussey from the AITC program in New Brunswick. Sharon a was a major force in the AITC program, providing valuable leadership not just within New Brunswick but to the various AITC programs across Canada. I am sure you join with me in wishing Sharon the very best success in her new responsibilities.

Your ideas and suggestions for this newsletter are most welcomed. Please contact Ian Willsher, Livestock Development Division, Agriculture Development Branch, Agriculture Canada, 930 Carling Avenue, Sir John Carling Building, Ottawa, Ontario, K1A 0C5, Phone (613) 995-9554, Fax (819) 953-3828.

3rd National AITC Conference

The planning for the 3rd National AITC Conference in Saint John, New Brunswick is well underway. The conference will begin on Sunday, October 14 and conclude after lunch in Tuesday, October 16. The registration fee will be approximately $100.00.

The theme of the conference is "Growing Our Future". A host of interesting topics and guest speakers have been incorporated into the conference agenda. These include a national/international overview of AITC programs, practical aspects of teaching AITC, teacher and resource development, agriculture into the 90's, agriculture and society and agricultural career opportunities.

All AITC national newsletter subscribers will be included in the mailing list for the conference registration. This is an excellent opportunity for all of us associated with or interested in the various AITC programs to collectively share ideas. Mark the dates on your calendar as the autumn colours and eastern hospitality will certainly enhance this conference.

For further information contact Joyce Ferguson, New Brunswick Department of Agriculture, P.O. Box 6000, Fredericton, N.B., Phone (506) 453-2333, Fax (506) 453-7170.

BRITISH COLUMBIA

The British Columbia AITC Foundation has applied to Revenue Canada Taxation for a charity registration number so that contributions made to the Foundation can be used for income tax credits. The Foundation is working towards appointment of an advisory council whose terms of reference include fund raising. A $5000. grant from the British Columbia Ministry of Agriculture and Fisheries is allowing the foundation to proceed with the preparation of a brochure and other materials that will explain the Foundation and its aim of "promoting an awareness and understanding of the Agri-Food system through the introduction of an AITC program in the school system".

For further information contact Maureen R. Garland, Director, Continuing Education and Communications, Faculty of Agricultural Sciences, University of British Columbia, #248-2357 Main Hall, Vancouver, B.C. V6T 2A2, Phone (604) 228-5072, Fax (604) 228-6394.

ALBERTA

Alberta Agriculture

Each summer, United Farmers of Alberta (UFA) will provide $15,000. towards scholarship funding for up to 30 teachers to attend the summer agriculture institute which is a full-credit, fourth year, university level course. The institute will be held at Lethbridge Community College and will be credited by the University of Lethbridge in 1990. The institute is a cooperative venture between the University of Lethbridge, Lethbridge Community College, the AITC program and United Farmers of Alberta Cooperative. Each of these partners will be contributing organizational and resource support for the institute.

The institute's class assignments and lesson plans with an agriculture awareness theme will be published by the AITC program for the benefit of all Alberta teachers. At the twelve-day institute course, teachers will explore the diversity of Alberta's agriculture industry through expert guest speakers, agriculture tours and a stay with a farm family. Agricultural production, processing, marketing, research and development will all be highlighted.

An adopt-a-classroom program is being piloted this spring with 4-H members corresponding with elementary classrooms. The project will be evaluated for merit as a major program offering in the fall.

The winner of the 1989 soil conservation week poster has now been published and has been made available through the Prairie Farm Rehabilitation

Association for national distribution during the week of April 9-15. The 25 runner up posters will be used as the visuals for a soil conservation kit for use in Alberta elementary schools. The kit will be ready for distribution in September 1990.

For further information contact Betty Gabert, Agricultural Education Branch, Alberta Agriculture, 2nd Floor, 7000 - 113 Street, Edmonton, Alberta, T6H 5T6, Phone (403) 427-2402, Fax (403) 438-3362.

CLASSROOM AGRICULTURE PROGRAM (CAP)

For the fifth successive year, agricultural organizations in Alberta have worked together to develop a classroom agriculture program to familiarize students about agriculture which is one of Alberta's most important industries. Organizations participating include the Alberta Cattle Commission, Alberta Egg Producers Board, Alberta Fresh Vegetable Marketing Board, Alberta Irrigation Projects Association, Alberta Potato Marketing Board, Alberta Sheep and Wool Commission, Alberta Women in Support of Agriculture, Alberta Women's Institute, Beef Education Association, Beef Information Centre and the Alberta Dairy Products Promotion Board.

Cap is unique in that elementary students meet people involved in the agricultural sector who share their experiences with the students. The theme of the program is Alberta's Land is our Land. The program is designed to impress upon the students that farmers and ranchers are caretakers of the land and that all Albertans receive direct benefit from the efforts of farmers and ranchers and other people who are involved in the agricultural sector.

Cap 90 was presented to grade four students during agriculture week, March 12-16, 1990. To date approximately 120,000 students have participated in the CAP program.

For further information contact Joanne R. Lemke, Alberta Cattle Commission, 216, 6715 - 8 Street N.E., Calgary, Alberta, T2E 7H7, Phone (403) 275-4400, Fax (403) 274-0007.

SASKATCHEWAN

Saskatchewan Education

Since Saskatchewan Education announced plans for the agriculture project back in October 1988, a consultant has been hired and an AITC reference committee established to integrate agricultural topics and issues into existing and developing curricula. The committee has identified topics for increasing agricultural awareness. Initial feedback from teachers, industry and educational systems has been very positive.

The science for the elementary level curriculum (grades 1-5) will be the first course to reflect the incorporation of learning objectives specifically related to agriculture. Implementation of this curriculum is scheduled for the fall of 1990. Senior science, social studies and history courses are currently being developed and will integrate agriculture content. A large segment of the social studies course in grade 10 will be devoted to the domestic and international economics of agriculture. Mathematics will use agricultural content to enhance concepts at the elementary level. Modules on farm accounting and agri-business are proposed for the business education and entrepreneurship courses.

Saskatchewan Education, industry, local educators and other governmental agencies are cooperating on the educational program at the Canadian Western Agribition. It is anticipated that approximately ten thousand school children will visit Agribition in 1990. Displays will be coordinated around the theme "Agriculture and the Environment". Teachers will be provided with material and curriculum references.

Evaluation and listing of agricultural resources is continuing and the cooperation of other provinces, industry and government agencies is appreciated

For further information contact Karen McDonald, Education AITC Consultant, Saskatchewan Education, 2220 College Avenue, Regina, Saskatchewan, S4P 3V7, Phone (306) 787-2468, Fax (306) 787-6769.

AG Insight

The Agriculture Insight Foundation Inc. (AG Insight) has just arranged with CN Rail to introduce the company's "Grain and Seeds in Canadian Agriculture" to Saskatchewan schools. The resource will be used in the grade four and five social studies classes.

Work continues with Saskatchewan Education on the development of the half-hour agriculture video. The video when completed will be part of the grade eight science curriculum. Other Ag Insight projects include an industry resource bibliography and resource room. The results of the AG insight's survey, polling Saskatchewan's non-farm residents, has concluded that non-farm residents favour agriculture being taught in schools. AG Insight's education and awareness programs will address this and other issues raised by the respondents.

AG Insight's membership now numbers about 50. Of this year's $216,000 budget, about 55 percent will come from individuals, farm groups and agri-businesses. The remaining funds will come from the agriculture development fund.

For further information contact Rob Brown, Agriculture Insight Foundation Inc., P.O. Box 567, 502 - 45th street West, Saskatoon, Saskatchewan, S7L 6H2, Phone (306) 653-0979, Fax (306) 244-2918.

MANITOBA

Manitoba agriculture in the classroom (MAITC) has been very active since the last national update. Under the Canada-Manitoba Agrifood Agreement, a grant was received allowing MAITC to hire a part time coordinator for committee activities. These activities include the distribution of introductory materials to teachers, participation in professional development activities and the distribution of a resource and speakers list to all school divisions.

The inaugural annual meeting of MAIC was held on March 7, 1990 and was attended by approximately 80 people. The progress of MAITC to date and a program outline for 1990 - 1991 was presented.

A membership drive launched in January has resulted in over 250 individual memberships in MAITC and efforts are continuing to strengthen links with both the farm and AG industry sectors as well as with the Departments of Agriculture and Education and Training.

For further information contact Lee Anne Murphy, MAITC Coordinator, Suite 18, 5 Scurfield Blvd, Winnipeg, Manitoba, R3Y 1G3, Phone (204) 488-4888 or 735-2493.

ONTARIO

Ontario Ministry of Agriculture and Food

AITC in Ontario has had a busy year. An AITC implementation committee, chaired by Lindsay Barfoot, former Vice President of Agriculture for the Bank of Montreal, has been working hard to develop specified strategies for creating an autonomous organization. This committee is also addressing future and current needs in the area of communications, learning materials and professional development.

A series of nine leadership development workshops for AITC volunteers were offered across the province between September and May attracting approximately 200 participants. These workshops were conducted by AITC Associates.

A bilingual consultant, Josee Lapierre, was hired in January to work with francophone and french immersion teachers across the province. This brings to four the number of regional education consultants for AITC working with school boards and volunteers in Ontario.

From August 14-17, the University of Guelph will host the first AITC summer institute for teachers. Up to 30 registrants will be accepted. It is anticipated that there will be representation from all grades and subject areas within the education system. As well, next fall on November 1-3, the Stormont, Dundas, Glengarry Roman Catholic Separate School Board will host an AITC conference in Eastern Ontario for educators and volunteers working in the program. The conference chairperson is Brian Goudge, our ATIC consultant for Eastern and Northern Ontario.

For further information contact Joyce Canning, Rural Organizations and Services Branch, Ministry of Agriculture and Food, Guelph Agriculture Centre, P.O. Box 1030, Guelph, Ontario, N1H 6N1, Phone (519) 767-3546, Fax (519) 767-3635.

AITC Associates Incorporated

The former First National Conference Committee has just recently completed formal incorporation proceedings under the name AITC Associates Incorporated. The officers of the company are Pat Froud - President, Suzanne Leitch Vice-President, Jean Johnson - Vice President, Lavonne Stephen - Treasurer and Sharon Weitzel - Secretary.

AITC Associates Inc. has been busy this winter, conducting volunteer development workshops for the Ontario Ministry of Agriculture and Food. These workshops are intended to make our primary producer groups familiar with the AITC methodology of how AITC works in the classroom and address both the concerns and the many pitfalls that can occur. AITC Associates Inc. has gained a great deal of expertise in this area and are available for similar workshops across Canada.

AITC Associates Inc. is presently working on innovative, high tech, education resources which will be national in scope. For this project to be successful all those involved in agriculture are needed to work co-operatively together to see it in place. AG business, education, AG organizations, government agencies and primary producers are all needed for successful implementation of this project.

AITC Associates are also assembling a display which will contain examples of AITC resource material from across Canada. The display would be used at various conferences, seminars and workshops. The first use of this display will be the Ontario summer institute to be held in August at the University of Guelph. Any provincial AITC program which would like to have examples of their resource material contained in the display should send the material to us by June 1, 1990.

For further information contact Sharon Weitzel, AITC Associates, R.R. 2 Tavistock, Ontario, N0B 2R0, Phone (519) 273-0918.

QUEBEC

The Quebec Ministry of Agriculture, Fisheries and Food (MAPAQ) has sent out to all secondary schools an AITC kit entitled "Quebec's Agricultural Resources". The multimedia kit will become part of the pedagogical material for the secondary III course "The Geography of Quebec and Canada". This is a mandatory high school course that will from now on have a module covering agriculture and forestry.

The aim is to provide a better understanding of the nature and value of agriculture to Quebec society. The modules' objectives are to have the students associate the agricultural regions with their natural resources and to be able to give a description of dairy production within Quebec. The kit contains:

-Ten information sheets with text, graphics, tables and exercises that can be photocopied and distributed;
-A video entitled "I eat on the fourth floor" that gives an overview of Quebec agriculture and its operation;
-A series of slides entitled "The Dairy Farm, a biological factory" which accompanied by the text provide a look at a dairy farm from the barn to the fields with all the diverse elements in between;
-A wall chart showing the predominant agricultural regions in Quebec and the types of production found in each region;
- A little something to intrigue: an artificial insemination straw.

For further information contact Jacques Boucher, Direction de l'enseignement enagro-alimentaire, 1020, Route de l'Eglise, 1er étage, Ste Foy, Québec, G1V 4P3, Phone (418) 644-1315, Fax (418) 643-6680.

NOVA SCOTIA

The Nova Scotia agricultural awareness committee coordinated a special "Farming is Awesome" exhibit at the Atlantic winter fair where over 6,200 school children visited the show. Each of the participants completed a quiz and received a tiny tom tomato plant to take home. The committee is working with Valley School grade 6 teachers in developing a teacher resource kit. A list of farmers able to host farm tours is also being developed for teachers to enhance their agriculture lessons.

Food fabulous was a special program, sponsored by the Department of Agriculture and Marketing, which mixed the theatre with food education. A jam-packed audience of 350 people participated. The biology department is doing research on "Fast Plants". These special plants when developed will be ideal for use in school classrooms because of their rapid growth rate.

The Women's Institutes of Nova Scotia have developed an agriculture colouring book and an agriculture activity book for use in the classroom. The Inverness Women's Institutes are coordinating a special grade 6 agricultural education kit for the schools.

The majority of 4-H events in Nova Scotia had a agriculture awareness theme. In the three regions, Skil-A-Thons, based on agricultural knowledge, were held provincially, one quarter of the junior leaders' conference was an agricultural awareness program. Sessions on agricultural awareness were also held at the Atlantic 4-H Communications Conference in Truro.

For further information contact Susan Horne N.S. Department of Agriculture and Marketing, P.O. Box 550, Truro, Nova Scotia, B2N 5E3, Phone (902) 895-1571, Fax (902) 895-7693.

AGRICULTURE CANADA

A number of publications are produced by Agriculture Canada to keep students informed about Canada's Agri-Food Industry including the activities, programs and services offered by the Department plus a variety of diverse topics such as environmental conservation and a career opportunities in agriculture.

The most recent additions to our inventory of communications materials include Conserving Our Agricultural Heritage which is an environmentally-oriented poster and the Directory of Agri-food Organizations. As well several popular items such as our award-winning children's poster, growth chart, Agriculture Canada Factsheet and Farming in Canada are still available.

Three useful resource publications, Directory of Programs and Services, Soil and Water Conservation Communications Resources and the Agriculture Factfinder are currently being revised and will be available later this year.

To order these and other Agriculture

Canada materials in reasonable quantities, contact Communications Branch, Agriculture Canada, Ottawa, Ontario K1A 0C7, Phone (613) 995-8963.

Ag in the Classroom

Notes

United States
Department of
Agriculture

A bi-monthly newsletter for the Agriculture in the Classroom program. Sponsored by the U.S. Dept. of Agriculture to help students understand the important role of agriculture in the United States economy. For information, contact: Shirley Traxler, Director, Room 317-A,Administration Bldg.,USDA, Washington, D.C. 20250-2200. 202/447-5727

May/June 1990
Vol. 6, No. 2

South Carolina AITC Kicks Off With Teacher Workshops

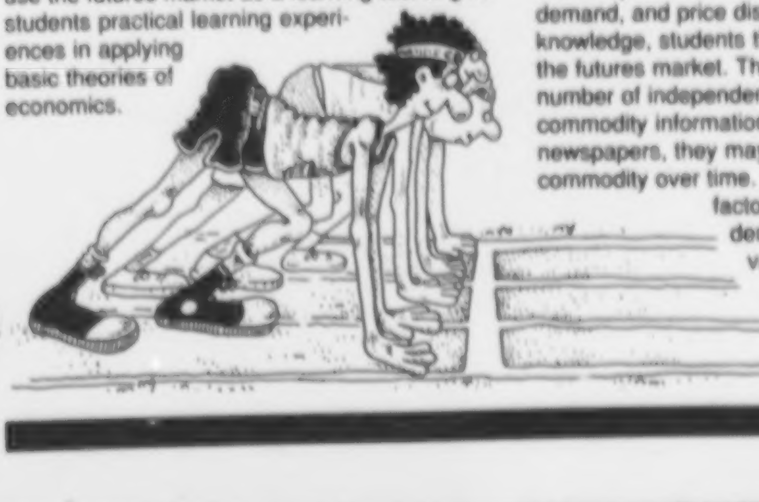
This summer, South Carolina's AITC will kick off activities with a series of teacher workshops. The four workshops, which are the first major undertaking of the AITC program in the state, will show teachers in grades K-5 how to integrate agriculture into the existing curricula in science, mathematics, geography, social studies, history and language arts.

Participants in the workshops will receive teaching materials and a list of resources for teaching about agriculture. Participants will also receive fact sheets, video filmstrips, and activity sheets they can use with students in their classrooms. The goal of the workshops, says Lynne Hufziger, career guidance specialist for

continued on page 4

New Economics Package Offers Real-World Experience

Going long. Settlement price. Close a position. Those are just some of the important economics concepts high school students are learning as they use a new economics curriculum kit developed by the Chicago Board of Trade. The materials, called *The Commodity Challenge*, use the futures market as a learning tool to give students practical learning experiences in applying basic theories of economics.



"More people are affected in their daily life by the futures market than the stock market. Yet few people—of any age—know anything about the futures market," says Bonnie Culp of the Chicago Board of Trade.

The Commodity Challenge first focuses on three key economics concepts: supply, demand, and price discovery. Armed with that knowledge, students then begin to learn about the futures market. The materials suggest a number of independent activities. Using commodity information published in newspapers, they may track a particular commodity over time. They also research the factors that influence supply, demand, and price for various commodities.

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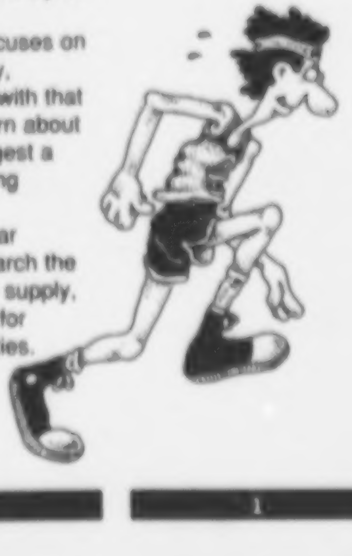


From the Director

Dear Readers,

This week the National Governors' Association and the U.S. Environmental Protection Agency sponsored a Youth Environmental Action Forum in Washington, D.C. Attending were two students and an environmental/science teacher or administrator from each state.

The objectives of the forum were to provide participants with increased awareness of domestic and global issues, to identify strategies for youth involvement in community environmental projects back home, and to provide a forum for discussion of future state and national environmental education programs.

On the agenda for the teachers/administrators was a visit to the Department of Agriculture where they had a chance to inspect the educational materials from the various USDA agencies.

I was gratified to learn that many of them are familiar with Ag in the Classroom and some are involved in your state programs. They understand and appreciate the close ties between agriculture and the environment.

Yours truly,

Shirley Traxler

Shirley Traxler

ACTIVITY
Long... Buy
Sell... Short

Economics Package

continued from page 1

"We're lucky to be able to use our market as an example of supply and demand at work," says Culp.

Teacher training is an integral part of the *Commodity Challenge*. A teacher's guide that accompanies the student materials includes a number of suggestions of additional class activities for follow-up. Teacher inservice sessions are also available. "We've found that in general, the teachers need to learn as much as the students do," Culp said.

The *Commodity Challenge* can be used in social studies, consumer economics, business math, and economics classes. The flexible program can be used as

- an independent study project
- a class assignment
- a new school club
- part of an existing school club (4-H, FFA)
- an activity supplement to an economics textbook.

To be part of the *Commodity Challenge* program, teachers must register each student. A fee of $1 per student covers the cost of materials and shipping.

For more information, contact
Richard Jelinek at the Chicago
Board of Trade, 312/435-7206.

Spotlight

Maine Teacher Stresses Agriculture's Past—and Future

"I firmly believe that agriculture is part of our heritage ... and part of our future," says Maine teacher Bonnie Wetmore. Since attending a Maine Ag in the Classroom summer teacher workshop, Wetmore has put her philosophy into practice. Today, her students find agriculture incorporated into subjects ranging from language arts to science, from the first time the bell rings until school's out.

Wetmore teaches third graders at Crooked River Elementary School in Casco, Maine. She says that most of her students have never had any first-hand experience with farming. "So it's essential that students learn about agriculture in school."

Wetmore uses Ag in the Classroom activities to help students think and reason. Often she asks questions that have many right answers. She started a lesson on map-reading by asking, "What needs to be near a farm?" Based on the answers they had developed, students then looked at maps to determine the best locations for farms.

When students were learning about apples, they found apple activities incorporated into language arts (reading about Johnny Appleseed), math, and science. Wetmore brought in nine different kinds of apples. Students graphed the number of seeds in each, and then made a chart that reflected other information about the apple (was it sweet or sour? green, yellow, or red?)

Wetmore makes sure that students have fun while they're learning. One example is her collection of student-written "Pigericks"—jokes and riddles involving pigs. Example: What's a pig's favorite game? Pig-Pong.

Parents, too, are involved with their children's learning. At the end of the year, she and her students sponsored a harvest festival. Students had baked apple and blueberry muffins (which they served with homemade butter). They had also prepared applesauce and potato chips to serve their parents. While everyone munched, students shared what they had learned during the year.

During the summer, Wetmore plans to return to Maine's summer teacher workshop—this time as an adviser. "I've learned so much myself, and my students have gained in so many ways, that I want to share the experience with a new group of teachers," she says.

Students in Bonnie Wetmores third grade study agriculture all year long.

Delaware: New Materials Incorporate the Best

Delaware
Agriculture
in the
Classroom

Anyone who's ever been stuck with a bad bargain has probably been told they bought "a pig in a poke." But where does the expression come from?

Students in Delaware English classes can learn that the saying originated at country fairs in England. A cheat would put a cat in a cloth bag, called a 'poke,' and hoodwink some unsuspecting buyer into thinking there was a fine pig in the poke. The customer would pay the money, the seller would vanish, and when the poke was opened, the customer would find nothing but a cat.

Information on how figurative language often reflects our agricultural heritage is just one of dozens of teaching activities collected in a new notebook of curriculum materials published by Delaware Ag in the Classroom. Designed for elementary grades, the materials offer suggestions for incorporating agriculture into English, social studies, art, math, and science.

Many of the materials in the Delaware notebook have been collected from other AITC programs around the country. Both the North Dakota and Nebraska AITC programs are credited with developing some of the activities in the notebook.

Each activity begins with a cover sheet that helps teachers see at a glance:

- the subject area for which the activity is designed
- student learning objectives
- suggested grade level
- source of the activity
- contacts for further information
- background information for the teacher.

Each activity package includes step-by-step instructions that begin with the materials needed and conclude with suggestions for follow-up activities. The directions offer the kind of practical advice teachers appreciate. For example, one set of directions includes the following comment, "I found that using a scissors is a pain because the toothpicks tend to split while cutting. Instead, I used a paring knife."

Language arts teachers who use the materials will also learn that to avoid buying a pig in a poke, smart buyers would insist on opening the bag first. The result? The cat was let out of the bag.

South Carolina

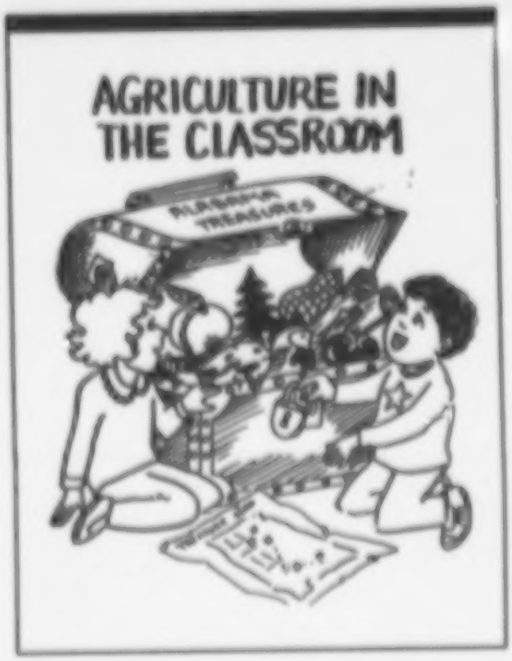
Continued from page 1

the South Carolina State Department of Education and state contact for South Carolina AITC, is to "help teachers bring familiar and not-so-familiar agricultural principles and applications into the other curricular areas.

"We have surveyed fifth graders in the state to determine what they know—and don't know—about agriculture," says Hufziger. "Their responses will form the basis of what we teach at the workshops."

South Carolina's program is offered through Clemson University in cooperation with the South Carolina Farm Bureau, the South Carolina Department of Education, and the South Carolina Department of Agriculture. Glenn Shinn, head of agriculture education at Clemson University, Emory Bishop of the South Carolina Farm Bureau, and Peggy Cain, science consultant for the State Department of Agriculture, have worked closely with Hufziger in developing the AITC program and in planning the teacher workshops.

Alabama Workshop Focuses on the Young Child



Young children need more than paper-and-pencil activities to learn effectively. Ag in the Classroom activities, which build on children's natural curiosity about the world around them, are ideal for early childhood education. That was the message at a workshop sponsored by Alabama Ag in the Classroom held during the annual conference of the Alabama Association for the Education of Young Children.

"So often, we have taken practices from high school or junior high and superimposed them on young children," says Jacqueline Autrey, early childhood specialist with the Alabama State Department of Education and co-author of Alabama Treasures, a developmentally appropriate curriculum guide for students in grades K-3. "But the Ag in the Classroom activities are right in line with what is recommended for students in this age group. They're hands-on activities that allow students to explore and experience for themselves."

Autrey points out that most primary grades already include a unit about farms. "We aren't asking teachers to do anything new. But the Ag in the Classroom activities add a richness and a depth to the curriculum," she says.

Presenting the workshop with Autrey was Rosemary Mobley, the co-author of Alabama Treasures. They showed teachers how the activities presented in Alabama Treasures meet the new national guidelines for developmentally appropriate practices recently issued by the National Association for the Education of Young Children. "These new guidelines have had a dramatic effect on the way teachers think about teaching students in the early grades," Autrey says. "They are constantly looking for new curricular practices that do a better job of meeting the needs of young children."

Alabama Treasures is designed to be a flexible resource unit. "Teachers can use all of it—or any part they choose," she says. In her visits to classrooms around the state, Autrey has found that teachers have used the curriculum ideas "as a springboard. It has really fostered teachers' creativity.

"The true test of any curriculum materials," Autrey notes, "is whether teachers actually *use* them." That's a test that Alabama Treasures has passed ... with flying colors.

Left: Young children have fun while learning in an activity from the Alabama Treasures curriculum

Colorado Students Rise to the Occasion

A program that combined bread baking, lessons on agriculture, and a good healthy dose of self-esteem helped more than 175 low-income Denver youngsters rise to the occasion. The five-week workshop, titled "Building a More Positive You," combined developing self-worth with studying the connection between Colorado agriculture and Denver living.

Behind the enthusiastic youngsters, the tubs of flour, and the bubbly yeast was Karen Williams, a Colorado State University Cooperative Extension agent with the 4-H program in Danver County. Williams designed a program to help city youngsters gain a renewed sense of self-worth, while also learning about the farm-city connection.

Materials for the workshops included the *Colorado Reader*, an eight-page newspaper developed by the Colorado AITC program. Helen Davis, state AITC contact, said, "We were delighted to see our materials integrated into this program. Having students learn about Colorado agriculture was a unique and creative aspect of this program."

A Denver youngster mixes bread–in–a–bag at Curtis Park Community Center. The bread–baking lesson, dubbed Rise to the Occasion, was organized by Karen Williams, Colorado State University Cooperative Extension agent, 4-H, to teach urban children the farm-city connection, as well as to help them develop self-esteem.

How do you instruct a room full of kids—37 at one location—in the art of baking bread? "First," said Williams, "you get organized." This means presenting large how-to illustrations before the first cup of flour is dipped and measured. It means lugging in plastic tubs of ingredients and enough measuring cups and spoons to equip each participant. It also means organizing participants into small groups so everyone can have enough space to work during the assigned times.

Each child received a plastic bag. One by one, they stepped forward, first to measure yeast, sugar, salt, powdered milk, and water into the bag. While the mixture fermented, the children got a lesson in growing wheat.

Wheat seeds, wheat plants, and a colorful illustration of a wheat head that contained many kernels of wheat all helped students learn exactly how the wheat had moved from the farmer's wheat field to their grocery store. "Students were fascinated to see the wheat plant," said Linda Rinelli, Cooperative Extension Education Specialist for the Denver Urban Garden Program. "They had little or no idea what growing wheat looks like."

Rinelli explored agriculture in other sessions, including an urban gardening workshop called Grow Your Own Crops. "Because the students represented so many ethnic backgrounds, I paid special attention to how Colorado farmers grow the foods that are part of their heritage. American Indian children learned where Anasazi beans are grown. Hispanic children saw that Colorado farmers also produce the beans *they* are familiar with. And African American kids learned that they could even plant collard greens themselves."

The program was designed for low-income city youngsters. Funded by a grant from the Arco Foundation, the sessions were held at community centers, a recreation center, and a school.

The program was so successful last summer that it will be repeated this year. Mary Hartman, Jefferson County Extension Office, says she was particularly impressed by the "I Can Do" attitude the program helped develop in young people. "The fact that these youngsters could take home a loaf of homemade bread—and possibly even teach their *mothers* a new skill—was instrumental in helping raise their self-esteem."

New USDA Video Emphasizes Agriculture's Importance

A new USDA video, "America's Most Crucial Industry," details agriculture's contributions to the United States. The 15-minute TV production helps viewers of all ages understand agriculture's vital role in the American economy.

"Agriculture has provided the foundation for the development of commerce in the United States," said Paul E. Kindinger, USDA's director of public affairs. "It is immense, complex and an integral part of every local economy in this country. The success of our economy depends, in large part, on how well our agricultural system performs."

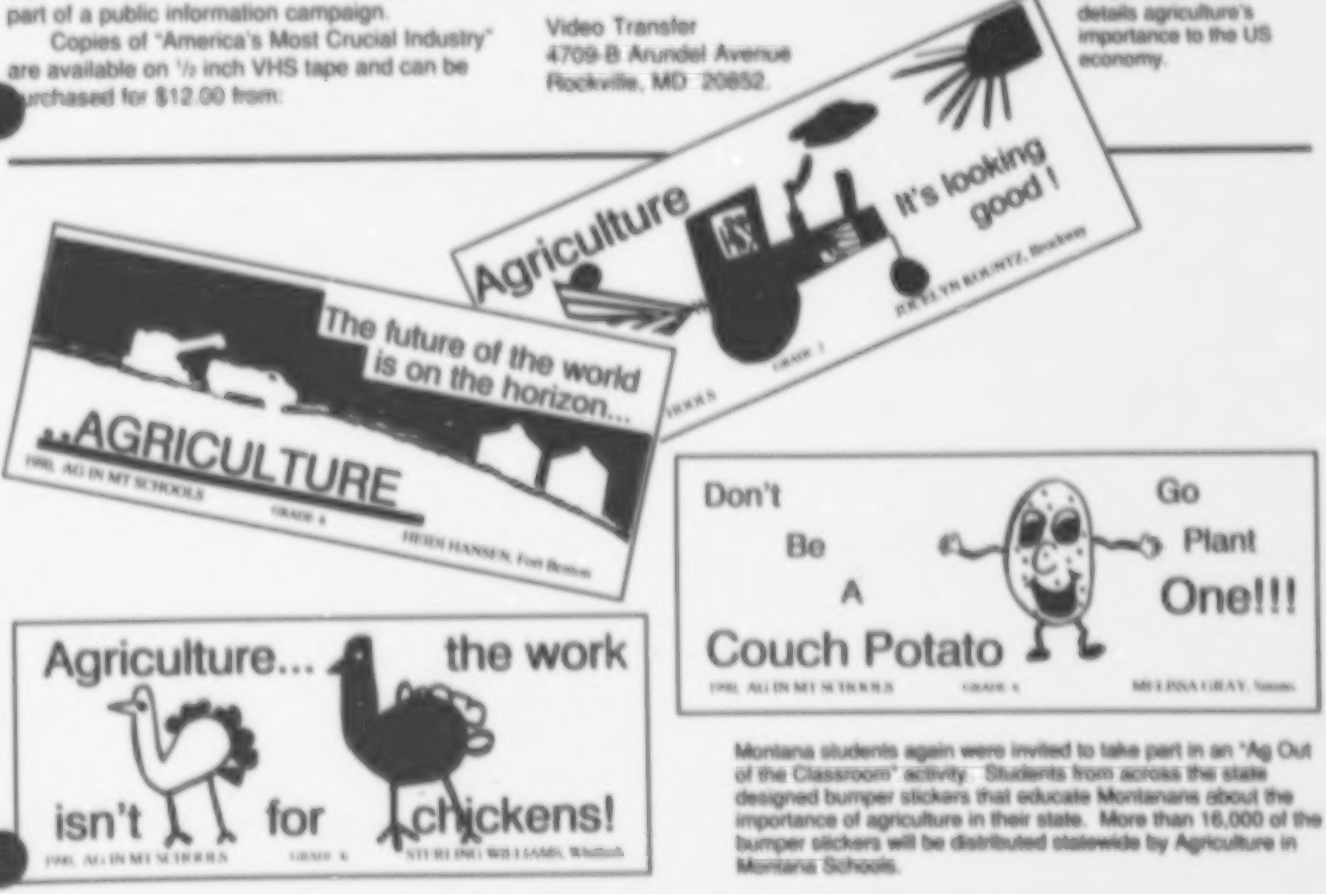
The video helps viewers realize a surprising fact: although the number of farmers has declined, the number of people who derive their income from agriculture and related industries has increased. As a result, agriculture today employs more workers than any manufacturing industry.

Kindinger noted that the video would be an excellent educational tool. It could also be used as an introduction to teacher workshops or as part of a public information campaign.

Copies of "America's Most Crucial Industry" are available on ½ inch VHS tape and can be purchased for $12.00 from:

Video Transfer
4709-B Arundel Avenue
Rockville, MD 20852.

A new USDA video details agriculture's importance to the US economy.


Agriculture
It's looking good !
GRADE 7
EVELYN KOUNTZ, Brockway
The future of the world is on the horizon...
AGRICULTURE
1990, AG IN MT SCHOOLS
GRADE 4
HEIDI HANSEN, Fort Benton
Don't Be A Couch Potato
Go Plant One!!!
1990, AG IN MT SCHOOLS
GRADE 6
MELISSA GRAY, Saco
Agriculture... the work isn't for chickens!
1990, AG IN MT SCHOOLS
GRADE K
STERLING WILLIAMS, Whitefish

Montana students again were invited to take part in an "Ag Out of the Classroom" activity. Students from across the state designed bumper stickers that educate Montanans about the importance of agriculture in their state. More than 16,000 of the bumper stickers will be distributed statewide by Agriculture in Montana Schools.

Ag in the Classroom — State Contacts

The individuals listed here are key reference persons in each state. If you have any questions, want to make reports, or need more information about your state's Ag in the Classroom program, contact the following:

[illegible]

Ag in the Classroom Notes
Room 317-A, Administration Bldg.
U.S. Department of Agriculture
Washington, D.C. 20250-2200

To stop mailing or to change your address send mailing label to above address

CENTRE DE FORMATION AGRICOLE
Grand-Sault

MINISTERE DE L'ENSEIGNEMENT SUPERIEUR ET DE LA FORMATION
DEPARTMENT OF ADVANCED EDUCATION AND TRAINING

PROGRAMMES DE FORMATION OFFERTS

- AGRO-TECHNIQUES
- AMENAGEMENT PAYSAGER
- PRODUCTION DE POMMES DE TERRE
- PRODUCTION PORCINE

C.P. 1270, Grand-Sault, N.-B. E0J 1M0 Tél.: (506) 473-2980

agro-techniques

CONDITIONS D'ADMISSION

Vous devez détenir un diplôme d'études secondaires ou un équivalent obtenu grâce à un programme reconnu d'enseignement pour adultes tel que les Cours préparatoires à la formation professionnelle (C.P.T.P.), le Programme de développement de l'éducation générale (D.É.G.), les cours du soir et les cours par correspondance.

La préférence est accordée aux candidats qui possèdent un nombre de crédits en sciences et mathématiques, dépassant les exigences minimales. Les candidats peuvent être obligés de suivre des cours supplémentaires en sciences et mathématiques avant l'admission.

DESCRIPTION GÉNÉRALE DU PROGRAMME

Ce programme vous donne la formation nécessaire pour travailler dans le domaine de l'agriculture. Vous vous familiarisez avec un grand nombre de techniques qui vous permettent de travailler dans une entreprise agricole diversifiée de petite envergure ou de vous spécialiser pour travailler dans une exploitation d'envergure importante.

Ce programme englobe cinq secteurs principaux, soit les habiletés générales, le secteur animal, les grandes cultures, la machinerie et la construction et la gestion de ferme.

Votre apprentissage comprend également un stage utile de six mois (24 semaines de mai à septembre) qui a lieu chez un employeur entre la première et la deuxième année de formation.

Ce programme est offert en anglais au CCNB-Woodstock et en français au CCNB-Edmundston d'une durée de 88 semaines; les cours sont donnés à Grand Sault.

APERÇU DU CONTENU

Ce programme de formation couvre les domaines suivants:

1. Zootechnie
   - Génétique
   - Nutrition animale
   - Alimentation animale
   - Parasitologie animale
   - Visites en zootechnie
   - Anatomie et physiologie animale
   - Production laitière
   - Production bovine
   - Production avicole
   - Production porcine

2. Phytotechnie
   - Botanique
   - Sols et terreaux
   - Fertilisation chimique et organique
   - Phytoprotection
   - Serriculture
   - Production de pommes de terre
   - Climatologie
   - Productions fourragères
   - Productions céréalières
   - Sylviculture
   - Productions légumières
   - Productions fruitières
   - Aménagement paysager

3. Économie
   - Comptabilité agricole
   - Économie agricole
   - Informatique
   - Gestion technico-économique
   - Régistre des salariés
   - Gestion financière
   - Gestion fiscale
   - Mise en marché
   - Projets de gestion

4. Matières connexes
   - Méthodologie
   - Mathématiques agricoles
   - Tracteurs et moteurs
   - Secourisme et sécurité à la ferme
   - Actualités agricoles
   - Soudage
   - Bâtiments agricoles
   - Machineries et équipement
   - Projets de recherche
   - Communication
   - Charpenterie

5. Stage pratique: 23 semaines

PERSPECTIVES D'EMPLOI

Les diplômés de ce programme de formation posséderont les connaissances nécessaires pour administrer leur propre entreprise s'ils le désirent. Ils sont aussi susceptibles de trouver un emploi dans les secteurs reliés à l'agro-alimentaire, aux opérations de la ferme, etc.

aménagement paysager

CONDITIONS D'ADMISSION

Vous devez détenir un diplôme d'études secondaires ou un équivalent obtenu grâce à un programme reconnu d'enseignement pour adultes tel que les Cours préparatoires à la formation professionnelle (C.P.T.P.), le Programme de développement de l'éducation générale (D.É.G.), les cours du soir ou les cours par correspondance. Une épreuve pratique en aménagement paysager constitue un atout pour ce programme.

DESCRIPTION GÉNÉRALE DU PROGRAMME

Ce programme vise à offrir à l'apprenant les connaissances et compétences nécessaires à un emploi en aménagement paysager. L'apprenant se familiarise avec l'environnement interne et externe de l'entreprise.

Le programme couvre trois secteurs principaux: la phytotechnie, l'économie et les matières connexes. L'apprenant participe à un stage de 7 semaines, compris dans le service de formation, afin de compléter les notions apprises en classe.

Ce programme est offert en français au CCNB-Edmundston; les cours sont donnés à Grand Sault d'une durée de 39 semaines.

APERÇU DU CONTENU

1. Phytotechnie
   - Botanique
   - Sols et terreaux
   - Fertilisation chimique et organique
   - Cas pratiques I - aménagement paysager
   - Phytoprotection
   - Serriculture
   - Climatologie
   - Aménagement paysager
   - Cas pratiques II - aménagement paysager
2. Économie
   - Comptabilité agricole
   - Économie agricole
   - Informatique
   - Gestion technico-économique
   - Régime des salariés
3. Matières connexes
   - Méthodologie
   - Mathématiques agricoles
   - Tracteurs et moteurs
   - Secourisme et sécurité à la ferme
   - Actualités agricoles
   - Projets de recherche
   - Charpenterie de base
4. Stage pratique: 7 semaines

PERSPECTIVES D'EMPLOI

Les diplômés de ce programme peuvent travailler à leur propre compte ou dans les secteurs de l'industrie en aménagement paysager.

AUTRE CONSIDÉRATION

Le contenu de ce programme fait partie intégrante du programme "Techniques en exploitation agricole".

production de pommes de terre

CONDITIONS D'ADMISSION

Vous devez détenir un diplôme d'études secondaires ou un équivalent obtenu grâce à un programme reconnun d'ensiegnement pour adultes tel que les Cours préparatoires à la formation professionnelle (C.P.T.P.), le Programme de développement de l'éducation générale (D.É.G.), les cours du soir ou les cours par correspondance.

DESCRIPTION GÉNÉRALE DU PROGRAMME

Ce programme vise à offrir à l'apprenant les connaissances et compétences nécessaires à un emploi en production de pommes de terre. L'apprenant se familiarise avec l'environnement interne et externe de l'entreprise.

Le programme couvre trois secteurs principaux: la phytotechnie, l'économie et les matières connexes. L'apprenant participe à un stage de 7 semaines, compris dans le service de formation, afin de compléter les notions apprises en classe.
Ce programme est offert en français au CCNB-Edmundston d'une durée de 39 semaines; les cours sont donnés à Grand Sault.

APERÇU DU CONTENU

1. Phytotechnie
   - Botanique
   - Sols et terreaux
   - Fertilisation chimique et organique
   - Cas pratiques I - production de pommes de terre
   - Phytoprotection
   - Production de pommes de terre
   - Climatologie
   - Cas pratiques II - production de pommes de terre
2. Économie
   - Comptabilité agricole
   - Économie agricole
   - Informatique
   - Gestion technico-économique
   - Régistre des salariés
3. Matières connexes
   - Méthodologie
   - Mathématiques agricoles
   - Tracteurs et moteurs
   - Secourisme et sécurité à la ferme
   - Actualités agricoles
   - Soudage
   - Projets de recherche
   - Communication
4. Stage pratique: 7 semaines

PERSPECTIVES D'EMPLOI

Les diplômés de ce programme peuvent travailler à leur propre compte ou dans les secteurs de l'industrie de la pomme de terre.

AUTRE CONSIDÉRATION

Le contenu de ce programme fait partie intégrante du programme "Techniques en exploitation agricole".

production porcine

CONDITIONS D'ADMISSION

Vous devez détenir un diplôme d'études secondaires ou un équivalent obtenu grâce à un programme reconnun d'ensiegnement pour adultes tel que les Cours préparatoires à la formation professionnelle (C.P.T.P.), le Programme de développement de l'éducation générale (D.É.G.), les cours du soir ou les cours par correspondance. Il est à remarquer qu'une expérience pratique en production porcine constitute un atout.

DESCRIPTION GÉNÉRALE DU PROGRAMME

Ce programme vise à offrir à l'apprenant les connaissances et compétences nécessaires à un emploi en production porcine. L'apprenant se familiarise avec l'environnement interne et externe de l'entreprise.

Le programme couvre trois secteurs principaux: la phytotechnie, l'économie et les matières connexes. L'apprenant participe à un stage de 7 semaines, compris dans le service de formation, afin de compléter les notions apprises en classe.

Ce programme est offert en français au CCNB-Edmundston d'une durée de 39 **semaines**; les cours sont donnés à Grand Sault.

APERÇU DU CONTENU

1. Zootechnie
   - Anatomie et physiologie animale
   - Cas pratiques I - production porcine
   - Génétique
   - Nutrition animale
   - Alimentation équilibrée
   - Production porcine
   - Cas pratiques II - production porcine
2. Économie
   - Comptabilité agricole
   - Économie agricole
   - Informatique
   - Gestion technico-économique
   - Régistre des salariés
3. Matières connexes
   - Méthodologie
   - Mathématiques agricoles
   - Tracteurs et moteurs
   - Secourisme et sécurité à la ferme
   - Actualités agricoles
   - Soudage
   - Projets de recherche
4. Stage pratique: 7 semaines

PERSPECTIVES D'EMPLOI

Les diplômés de ce programme peuvent travailler à leur propre compte ou dans les secteurs de l'industrie porcine.

AUTRE CONSIDÉRATION

Le contenu de ce programme fait partie intégrante du programme "Techniques en exploitation agricole".

Le Centre de formation agricole de Grand-Sault

Anne Daigle

Grand-Sault possède depuis 1980 la seule école de formation agricole francophone en Atlantique. Le Centre avait comme premier mandat la formation de la relève agricole. Il a cependant adapté sa programmation aux besoins d'une nouvelle partie de sa clientèle davantage portée à suivre des cours plus généraux en agro-alimentaire. Le Centre s'occupe également de dispenser des cours de recyclage et de perfectionnement.

La formation est un investissement indispensable au sein d'une entreprise agricole. Durant les années 80, 90% des nouveaux agriculteurs québécois n'ayant pas eu de formation agricole suivie ont fait faillite. Le Centre vise à donner une formation complète à la relève francophone et essaie de répondre aux besoins de formation identifiés par les agriculteurs.

Pour accomoder le plus d'individus, le Centre a entrepris de donner en plus du programme général de deux ans en technique d'Exploitation Agricole, trois autres programmes plus spécifiques d'une durée d'un an. Maintenant, il existe donc un certificat en production porcine, un en aménagement paysager et serriculture, un autre en production de pommes de terre. Les cours s'adressant aux praticiens de l'agriculture correspondent à des besoins spécifiques manifestés par un groupe d'agriculteurs, de techniciens, d'agronomes, d'ouvriers agricoles. Ce sont des cours offerts sur demande, dont le contenu diffère de ceux que donne le Centre à sa jeune clientèle. En 1988-89, des cours se sont donnés sur les arbres fruitiers, le Pigchamp, les bovins de boucherie, l'informatique et l'agriculture et la gestion agricole. Ce dernier cours a été offert dans la région d'Edmundston et dans la région de St-Quentin.

La formule de ces cours est assez souple. Le plus souvent, le cours se déroule là où il ya le plus d'inscription, ou au lieu de la demande. Un cours peut-être de quelques heures échelonnées sur quelques journées, ou une fin de semaine plus intensive. Ces différentes formules semblent porter fruit puisque cent soixante (160) inscriptions ont été dénombrées à ces programmes et au programme régulier cette année.

Le Centre est bien servi par un personnel compétent. Chaque enseignant est spécialisé dans sa branche d'activités. Les étudiants ont à leur disposition du matériel récent et adéquat:, salle de soudure, de mécanique, d'informatique, laboratoire, une petite serre et une bibliothèque. Les étudiants-es profitent de leur petit nombre. Ils-elles sont davantage encadrés par les enseignants, plus disponibles.

L'avancement technologique étant rapide en agriculture comme ailleurs, les enseignants se recyclent et se font un point d'honneur de transmettre l'information de dernière heure à leurs étudiants-es. Mais surtout, ils s'efforcent de former le jugement de l'étudiant-e, de leur donner les instruments pour lui permettre d'assimiler les idées d'avant garde et les nouvelles techniques; de choisir ce qui lui convient, indépendamment des modes mais au fait des nouvelles réalités de sa production. La politique de la maison est de suivre de près les dossiers importants afin d'y sensibiliser sa clientèle. L'étudiant-e est donc informé-e des problèmes se rattachant à:

- la conservation des sols;
- la diversification vs la spécialisation
- au problème de surproduction
- l'image de l'agriculture;
- au commerce international des denrées agricoles;
- la protection de l'environnement et des productions écologiques;
- l'intégration réelle de la femme dans le partenership;
- l'évolution de la ferme familliale.

Les cours réguliers amalgament théories et pratique dans cet optique. Les stages pratiques sont partie intégrante du cours de formation. L'étudiant est mise en contact avec les exigences physiques d'une exploitation agricole. L'aspect théorique des cours s'attache davantage à mettre de l'avant de bonnes habitudes culturales et à faire acquérir de solides pratiques de gestion. Le postulant agriculteur, qu'il soit de milieu rurale ou non voit donc l'ensemble des facettes de sa future profession.

La nécessité de parer aux coûts inutiles expliquent l'utilité de cours pratiques enseignant des rudiments en mécanique, en soudure, en médecine vétérinaire, etc. Le-la futur-e agriculteur-trice en apprend suffisament pour poser un diagnostique, et juger s'il lui est possible ou non de résoudre seul-e son problème. En sachant en reconnaître l'origine, il-elle sait à qui s'adresser au besoin pour le résoudre.

(suite page 9)

(suite de la page 8)

Au Centre, on travaille en collaboration avec le Ministère de l'Agriculture - plusieurs de leurs agronomes se trouvent être de leur professeurs invités - la Fédération des agriculteurs-trices du N.-B., les producteurs, etc. La Formation dispensée par le Centre est reconnue par les autres lieux d'enseignement agricole; le corpus des cours s'apparente au programme de l'I.T.A.A. de la Pocatière.

Le Centre recrute surtout sa clientèle au Nord-Ouest. Un de ces objectifs est de devenir plus présent au Sud-Est et au Nord-Est. Un sondage effectué sur le placement de ses étudiants-es trace un bilan positif de ses activités. Depuis 1982, 52 étudiants ont obtenu le grade de technicien en Exploitation Agricole. Sur ces 52 étudiants, 92.3% travaillent, dont 46.2% dans des entreprises agricoles, 34.6% en agro-alimentaire ailleurs que sur les fermes, 3.8% étudient présentement dans d'autres domaines de spécialisation, 3.8% se cherchent un emploi, 11.5% travaillent dans un domaine autre que l'agro-alimentaire. L'échelle de salaire de ces diplômés agriculteurs, employés, ou travailleurs en agro-alimentaire, se joue entre 18 et 40 mille dollars. Deux projets importants, le jardin botanique et le Centre de conservation des sols lorsque réalisés, risquent d'avoir un impact favorable sur le placement des futurs gradués.

L'agriculture, c'est un domaine d'avenir. Pas moins de 40% de l'économie du pays y est relié, directement comme indirectement. La technologie allège le travail de l'agriculteur, lui donne plus de liberté, de loisirs. Malgré les difficultés de certaines productions, on ne peut taire l'importance de la formation. La formation agricole est devenue un instrument nécessaire à la réussite, au progrès et au maintient de l'agriculture.

Tiré de:

Bulletin de la Fédération
Edition spéciale
Août 1989.

New Nouveau
Brunswick

New Brunswick Community College
Woodstock

Agriculture Training Program

NBCC Woodstock will be offering new one-year certificate programs in Agriculture. These training programs will be of interest to individuals wishing to enter a career in a special interest area.

Seven weeks of work experience will be part of these programs.

Entrance requirement for these programs are Grade 10 or equivalent.

The tuition fee is $500 per year. Some additional books and protective clothing will have to be purchased by the student.

NEW Programs

- Agribusiness
- Landscape Management
- Potato Management
- Farm Machinery
- Dairy Management
- Greenhouse Management
- Beef Management
- Swine Management

The Canada Employment Centre may sponsor eligible persons on these courses by paying tuition and assisting with travel and living away from home costs.

Scholarships

McCain Foods	$2,000
Havelock Lime	$500
Brookville Manufacturing	$200
Johnville Agricultural Society	$200
Charles Davis Scholarship	$200
Carleton Co-operative Ltd.	$200
Vesey's Seeds Ltd	$200
Carleton County Swine Producers	$200
NB Milk Marketing Board	$500
NB Fruit Growers Assoc.	$100
James Gallant Memorial	$600
Western NB Fur Farmers Assoc.	$100

The New Brunswick Department of Advanced Education and Training
Hon. Russell H.T. King, M.D., Minister

For Information contact the Admissions Officer at the New Brunswick Community College in Woodstock.
New Brunswick Community College Woodstock, P.O. Box 1175, Woodstock, N.B. E0J 2B0 Tel: (506) 328-9386

Agriculture Technician
Two Year Diploma Program

NBCC Woodstock provides the only post-secondary Agriculture program for anglophone high school graduates in New Brunswick.

This two-year diploma program is offered in cooperation with the Department of Agriculture, and provides practical and scientific training in all phases of agriculture.

One of the program objectives is to provide practical training to those persons wishing to manage their own farms.

The five areas of concentration are animal science, plant science, farm management, agricultural engineering and academic studies.

Every student is required to do a six-month practicum in the first year. Practicum runs from May to October.

In the students' second year, they may select an option in their chosen vocation in addition to the five areas of concentration.

The practical nature of the program is reflected in student projects, and in the tours and trips that are scheduled during the program term.

Entrance requirements for the program are high school graduation or equivalent, with priority given to applicants who have successfully completed more than the minimum required courses in science and mathematics.

The tuition fee for the program is $600 per year, and some protective clothing may have to be purchased by the student.

Graduates of this program may apply for the Agricultural Technology course offered at the Nova Scotia Agricultural College in Truro, N.S. This courses can usually be completed in one academic year.

COMMUNICATIONS

C100-3	Extension Education
C200-3	New Brunswick Agriculture

ASSOCIATED SUBJECTS

M100-3	Agricultural Mathematics
AP300-4	Agricultural Project
S500-5	Farm Simulation
SP500-4	Seminar Project
IS500-5	Independent Study
PT100	Practicum Training
G100-4	Applied Field Operations

FARM MANAGEMENT

F100-10	Introduction to Financial Records
F200-4	Applied Record Keeping
F202-4	Credit Management
F201-4	Farm Computers
F500-5	Farm Taxation
F501-3	Farm Marketing
F500-7	Farm Business Law

PLANT SCIENCE

PS100-5	Plant Anatomy and Physiology
PS101-5	Introduction to Soil
PS201-4	Soil Management
PS200-8	Plant Growth and Production
PS300-4	Pest Identification
PS400-4	Plant Protection
PS401-4	Apiculture
PS402-4	Tree Fruit Production
PS403-4	Cereal Crop Production
PS503-5	Forage & Pasture Management
PS502-5	Small Fruit Production
PS504-4	Vegetable Production
PS505-5	Potato Production
PS506-4	Farm Woodlot
PS102-5	Greenhouse Structures
PS203-6	Greenhouse Crops
PS103-5	Ornamental Plants
PS204-6	Landscape Design, Construction & Maintenance
PS205-6	Turfgrass Management

ANIMAL SCIENCE

AS100-5	Livestock Identification & Handling
AS101-8	Livestock Anatomy & Physiology
AS200-4	Animal Feeds
AS202-3	Animal Breeding
AS201-5	Animal Reproduction
AS400-3	Animal Health
AS500-5	Applied Veterinary Practices
AS202-2	Milking Equipment, Systems & Design
AS400-5	Dairy Cattle Production
AS502-4	Poultry Production
AS503-4	Swine Production
AS501-5	Beef & Sheep Production

AGRICULTURAL ENGINEERING

AE100-5	Farm Machinery Service
AE200-6	Principles of Farm Machinery
AE101-5	Farm Structures
AE101-3	Basic Arc Welding
AE201-3	Advanced Arc Welding
AE501-4	Oxy-Acetylene Welding
AE502-6	Farm Shop Project
AE202-3	Farm Hydraulics

LESSON 1

Curriculum Direction: Language Arts

Change and Constancy

Grade Level: 6

Purpose:

To learn how technology has changed man's activities on the farm.

To speculate how agricultural technology may change in the future.

Materials Required:

Supplies in this lesson.

Time Required:

Two-Three class periods.

Procedure:

Part 1

Introduction:

1. Review the concepts of change and constancy.

Part 2

Collecting Facts:

2. The class may be divided in half. One group would investigate egg production, and the other, milk production.
3. Show the class the pictures of the old methods employed in each operation. Ask them to suggest things they know about egg and milk production 75 years ago.
4. Show the class the pictures of the modern technology used in both of these operations. Discuss how things have changed.

Part 3

Making Predictions:

5. Ask each group to imagine how these operations may change even more over the next 75 years. What might change for the farmer?

6. Have each individual or group draw a picture or make a model of a dairy or egg production operation of the future.

Part 4

Conclusion:

7. Explain or demonstrate your technology of the future to the class.

For Discussion:

1. What sources of power will be used in the future?

2. How will the ratio of product to man hours change?

3. Will artificial substitutes ever be used in place of these two food items? Are substitutes used today?

Related Activities:

1. Choose another industry and find out how its technology has changed.

2. Compare the advances in agriculture technology to those in the auto industry.

3. Tour a modern dairy or poultry farm.

4. Do a taste test comparing milk to a milk substitute, eggs to an egg substitute, and butter to margarine.

Background - To the Teacher

The concepts of change and constancy are opposite. How can both of these concepts be applied to the same industry?

Example: Heat is required for cooking. The requirement of heat is constant, while the source of the heat may vary greatly. We may not even know what some of the sources of heat will be in the future.

In this lesson, we will look at two ordinary food products that we are all familiar with and eat often. We will see how the technology used in the production of these foods has changed, and we will see if we can predict some of the changes in this technology in the future.

LESSON 2

Curriculum Direction - Science:

What lives and what doesn't? What do living things need? - plants - seeds.

Grade Level: 1

Purpose:

To acquaint students with the plant of origin of commonly eaten seeds.

Materials Required:

Variety of seeds eaten by people (peas in pod, corn on cob, peanuts in shell, pumpkin seeds, sunflower seeds, popcorn, etc.), pictures of plants the seeds come from, blindfolds, paper cups.

Time Required:

One class period.

Procedure:

1. Have entire class or each small group form a circle.
2. Hang pictures of plants that produce the seeds on the wall. If pictures cannot be found, draw the plants on the board. Number each one.
3. Review process of seed to plant (discussion, drama, writing, etc.).
4. Pass each seed around.
5. When each seed has been passed around, vote on which seed matches which plant. If multiple copies of plant pictures are available, distribute the pictures and match them with the corresponding seeds.
6. Discuss how seeds are prepared for eating (raw, cooked, dried, soaked) and how each plant type has a distinct seed that grows from it.

7. Make popcorn, discussing how and why popcorn changes form. (See note to teacher at the end of this activity.)

8. Prepare a "taste test" table, gathering the types of seeds that have been passed around and putting them in paper cups on the table.

9. Divide group into pairs and blindfold students to taste the individual seeds.

10. After each is tested, have the students guess what kind of seed it is. Classroom aides, parents, or older students could help record answers.

11. Remove blindfolds and compare guesses with seeds.

12. This can grow into a seed festival or seed Olympics.

13. Have the children go on seed hunts in various places; e.g..,grocery store, farm, forest or schoolyard.

Related Activities:

a. Make a plant\seed chart.

b. Do some more seed activities (e.g. Sprouting Seeds).

c. Draw all the seeds that are eaten by people and farm animals (oats, etc.).

To the Teacher:

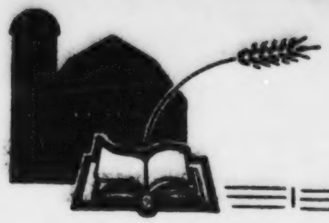
Different seeds have unique chemical make-ups that cause dissimilar reactions to the same stimuli. When heat is applied to most seeds, there is no obvious change in physical make-ups. However, when direct heat is applied to popcorn, the moisture locked inside their hard shells turns to steam, expands and causes the kernel to POP!

AGRICULTURAL AWARENESS

A Resource Guide Bringing Farmers and Students Together

New Brunswick
Department of Agriculture

New Brunswick



The Purpose Behind Agricultural Awareness

In a modern world dominated by big business and sprawling industrialization there has developed an increasing need for greater awareness of the essential role of our agricultural industry. Our objective is to foster such awareness among our youth through a cooperative effort between the school system and farmers.

The agricultural industry in New Brunswick encompasses a wide range of farm enterprises including dairy, potato, cattle and calves, poultry, hogs, fur, eggs, forest and maple products, fruit, vegetables and other crops. This interesting cross section of farming provides an ideal opportunity for students to discover first hand, knowledge about the local, provincial and even national and international agricultural industry.

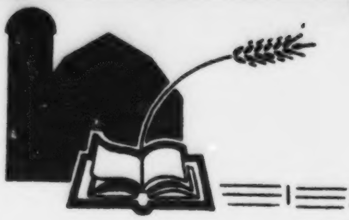
The objective of this Resource Guide is to bring together the educational resources of our local farms and students. The Guide lists county by county farm people who welcome the opportunity to accommodate farm tours and also those who have agreed to volunteer time to come into the school to speak about farm life, agriculture in the county and their specific field of specialization. This Guide also provides a listing of Marketing Boards, N.B. Farm Womens' Organizations and Regional Agricultural Offices that can answer questions and provide information about programs or printed materials.

This booklet also provides guidelines for teachers. Outlined are lists of helpful hints on:

-Planning A Farm Tour
-Inviting A Farmer To Speak

For those requiring further information regarding speakers or specific information regarding this program, please contact:

The Supervisor
Provincial Awareness & 4-H
N.B. Department of Agriculture
P.O. Box 6000
Fredericton, NB
E3B 5H1
PH: (506) 453-2333



Inviting A Farmer to Speak In the Classroom

Guidelines to insure a worthwhile visit for both farmer and student:

For classroom visits:

- *Schedule visits for no more that an hour.*
- *Once the date and time are established, prepare with your students questions you would like answered by the Farmer.* **SEND THESE QUESTIONS TO THE FARMER IN ADVANCE OF THE VISIT** *so he or she can be prepared to address remarks to the informational needs and level of the students.*
- *The most successful session with any classroom visitor is a* **QUESTION** *and* **ANSWER PERIOD, RATHER THAN A LECTURE.** *The farmer is more relaxed, and the students more attentive because of their involvement.*

After the visit............

- *Encourage the students to strike out in the county to find out more about farming. Encourage picture taking of area farms. These photos can be brought back to class for discussion and comparison of the various types of farming.*
- *Following a visit to a farm or a farmers visit to the classroom send a short note of thanks from the class -its a small gesture but one that makes a big impression.*

Planning A Farm Tour For Students

A. GOALS AND OBJECTIVES

Goals

Students will:

a) see farming as a business and a way of life.

b) recognize the importance of agriculture in their daily lives.

c) recognize the role of the farm family in food production.

d) observe the skills and knowledge required to farm successfully.

e) relate animals and crops on the farm to food products on the grocery shelf.

f) see various career opportunities

Objectives

These will vary with grade level, student interest, and area of study.

Specific objectives might focus on:

a) LIVESTOCK

-recognition of different types of breeds
-a source of food
-care required
-comparison of human needs to animals needs

b) PLANTS

-recognition of plants and seeds
-a source of food for animals and humans

c) *DEVELOPMENT OF SENSES*

-comparison of the sights, sounds and smells of the farm with those of the city

d) *FAMILY UNITS*

-human and animal
-the role of individual family members
-comparison of family life on a farm to family life in the city

e) *BUILDINGS AND MACHINERY ON FARM*

-the uses
-the costs
-the hazards

f) *THE FARM FAMILY AS A PART OF THE RURAL COMMUNITY*

g) *ENERGY ON THE FARM*

h) *LAND USE AND LAND MANAGEMENT*

i) *SCIENCE AND TECHNOLOGY ON THE FARM*

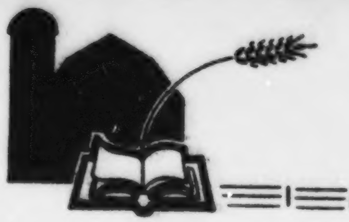
j) *ECONOMICS OF FARMING*

k) *SEASONS ON THE FARM - HOW THE FARM IS AFFECTED BY THE WEATHER*

B. INITIAL CONTACTS

Who to contact:

Local farm tours may be organized by producer organizations (beef, pork, dairy, poultry, fruit, vegetable), 4-H members, New Brunswick Farm Vacation Association, N.B. Farm Women's Association, or the Federations of Agriculture. The District Agriculturist of the District Specialists may also know individual farmers who accept school tours.



- *Select a farmer within your county. If this is not possible choose someone from the nearest neighbouring county.*

- *Precede and correlate the farmer's visit or farm visit with a study of agriculture.*

- *Contact the farmer by letter and suggest dates for a visit. In your letter be sure to:*

    - *Give a phone number where you can be reached to confirm date, establish time, and exchange ideas.*
    - *Inquire about any slides, photos or other visuals that could be shared with students. Some of the farmers do have visual aids, and will share them upon request.*
    - *Include your grade level and the number of students involved. A small group works best - two classes maximum.*
    - *Explain how the visit would complement your curriculum. For example, are you studying agriculture in New Brunswick? Is your lesson focusing on agriculture in Canada? The farmer could help compare that specific field of agriculture on a national level to the local scene. Career education? The farmer could suggest career possibilities in agriculture.*

Setting a Date:

Plan the visit well in advance. Notice that for each farmer an available time of year is listed. Some times of the year are busier than others for farmers. It is best to call in advance to choose a time when the farmer will be able to conduct a tour and answer questions. Please note only certain farms are able to conduct tours. Suggested months and age levels are also listed.

Making Plans:

- *Ask for landmarks as well as road signs and road numbers to prepare a good map to the farm.*

- *If travelling by bus ask where the bus can park and turn around.*

- *If you have specific requests check with the farmer on the first call to make sure he and his family are equipped to meet these.*

- *Ask for advance instructions for students. What special features on that farm should students be prepared to look for.*

- *Most farms today are specialized. The farm operation centres around one type of livestock or one area of crop production (fruits or vegetables). If possible, arrange to visit more than one type of farm in order to help students understand this concept.*

- *Find out the name and location of the closest school or park where students can eat lunch, use the washrooms and run and play. Most farms do not have these facilities for school groups.*

C. STUDENT PREPARATION

Guidelines for Student Behaviour - (should be discussed in advance)

- *The farm is both home and business for the farm family and a potentially dangerous site for visitors. It must be respected as such.*

- *Adequate teacher or parent supervision must be provided for students.*

- *Students should touch animals or machinery only if invited to do so.*

- *Students should not stand on fences or gates, open any doors or gates, or wander anywhere without supervision.*

- *Students should not pick anything or eat anything unless invited to do so. The sale of farm produce provides a living for the farm family. Seeds may be coated with poisonous fungicides.*

- *Odours which may be unpleasant to urban students are part of farm life. Students should be asked to refrain from inappropriate comments about these.*

- *Students must not litter.*

- *No smoking at the farm.*

Introduction of the Topic

a) Vocabulary Development

- *Students should become familiar before their tour with many of the terms they will hear on the farm.*

b) Stimulating Student Interest

- *Ask students to bring in samples of food products which might have come from the farm you will visit. Taste the products. Discuss the cost and availability of the products.*
- *Newspaper articles about current issues in agriculture are often of interest to older students.*
- *Students should be encouraged to research and develop a set of questions for the farmer before the farm visit. If possible the questions should be sent to the farmer in advance. Sample questions are included in this manual*

VISIT TO A DAIRY FARM

Advance Preparation

a) *Sample a variety of dairy products.*

b) *Find the cost of a litre of milk at the store.*

c) *Find out what price the farmer is paid per litre of milk produced.*

d) *Find the amount of milk needed to make one kilogram of cheese, and the price per kg at the store.*

e) *List the people and jobs involved in providing a glass of milk for the table. Students may need to ask the farmer about the people who supply his needs.*

Possible Questions for the Farmer (and answers)

1. *When does a cow begin to give milk?*

(after she has a calf- at approximately 2 years. Until that time she is called a heifer).

2. *How often is a cow milked?*

(twice a day - usually milkings are 12 hours apart).

3. *How much milk does one average cow produce in a year?*

(approximately 6000 litres or 24000 glasses).

4. *Do brown cows give chocolate milk?*

(No, the chocolate is added at the dairy).

5. *Does a cow give milk all year round?*

(No, she has a rest period or "dry" period for about two months before she gives birth to another calf).

6. *Do cows ever get sick?*

(Yes, they may get a udder infection, called mastitis, foot rot, respiratory illnesses or other illness).

7. *Who looks after sick cows?*

(The farmer and the veterinarian work together to try and prevent sickness and treat it when it happens).

8. *How does the milk get from the cow to the carton?*

(The milking machine is a suction system which draws milk from the cow into a pipeline in the barn. It is then pumped into a bulk tank in a milk house beside the barn, where it is cooled to 4C °. A tank truck comes to the farm every day or every other day and takes the milk to the processing plant or dairy to be packaged or made into one of many dairy products).

9. *What nutrients do cows need?*

(water, protein, carbohydrates (energy), vitamins and minerals, fats (lipids)).

10. *What are the main breeds of dairy cows in New Brunswick?*

(Holstein, Ayrshire, Jersey, Guernsey)

VISIT TO A BEEF FARM

Advance Preparation

a) *Sample some beef products.*

b) *Look at the price of different cuts of beef in the store.*

c) *Read the agricultural news to see how much the farmer is paid for beef.*

d) *Find out what by-products come from beef cattle.*

Possible Questions for the Farmer

1. *Why don't beef cows give milk?*

   (They do, but only enough to feed their own calves. Beef cattle breeders select animals which convert more feed into muscle than into milk).

2. *How do beef cattle differ from dairy cattle?*

   (Beef cattle have shorter bodies and stronger legs. They have thicker necks and appear fatter because they have more muscle covering their shoulders, ribs and rump. It is muscle which is used for meat).

3. *Are both males and females raised for beef?*

   (Yes. Males are usually castrated when they are young and are then called steers. Young females are called heifers).

4. *How old are steers and heifers when they are sold for meat?*

   (15 to 20 months)

5. *What is a beef cow/calf operation?*

(A herd of cows kept of the purpose of giving birth to calves. The calves are allowed to stay with the mothers and be nursed by them, usually in a pasture field, for seven to nine months. Then they are weaned at a weight usually between 250 - 300 kg and sold to a feedlot operator who feeds them until they are ready for market. Some are also raised as herd replacements, sold as baby beef to the local freezer market, or raised at home as finished cattle. The cows are bred to produce a calf on a yearly basis).

6. *What happens to a beef animal after it leaves the farm?*

(It is taken to a sale barn or stock yard and sold by auction to a slaughter house or meat packing plant where it is slaughtered. The waste and hide are removed to be used in by-products. The carcass is cut in half and the two "sides" are allowed to hang in a cooler for a short time. Then the side is cut into roasts, steaks, hamburger and others are packaged for sale to the consumer).

7. *What are the main breeds of beef cattle in New Brunswick?*

(Hereford, Simmental, Angus, Charolais, Limousin, Shorthorn).

D. THE FARM VISIT

Dress appropriately in casual, washable clothes. Wear rubber boots if there has been rain in recent days.

Students can be given a list of things to look for on the way to the farm (old windmills, a black horse, a field of corn, a red barn, a black and white cow, a white mail box, a tractor in a field, etc).

Crossword puzzles, word search puzzles and riddles pertaining to the farm are good activities for a short quiet time after lunch.

The farmer is a busy person who is volunteering time from a working day to conduct a tour and answer questions. Students must be encouraged to be attentive, courteous and respectful.

E. FOLLOW UP

- *A letter of thanks should be sent to the farmer and the sponsoring organization if one existed.*

- *Classroom activities to follow the trip will depend on the goals and objectives set. A list of possible activities follows:*

1. *List all the products grown or produced in your area. Suggest reasons why these products are grown in the area. Bring some samples of these products for an agricultural display. For example, jars of various types of grain, raw wool, pieces of hide, vegetables, etc.*

2. *Prepare a list of N.B. agricultural products. On a map of N.B. place a symbol of each product in the areas it is produced.*

3. *Collect labels of N.B. food products and make a collage or a mobile.*

4. *Visit a processing plant to see the processing of food products after they leave the farm.*

5. *Visit a farm-related industry. Focus on the type of work or work processes involved in the production of food. Find out how technology has changed this activity over the years. (eg. Farm implement dealers or manufacturers, feed and seed dealers, fertilizer plants, research laboratory).*

6. *List the tools and natural or human resources involved in farming. For example, land, water, fertilizer, tractors, plows, combines, irrigation equipment, labour, ideas, etc. Examine the cost of these.*

7. *Examine the factors that influence the retail cost of food and the price which the farmer receives. What contributes to the cost of such items as bread, canned vegetables, eggs, meat, dairy products, etc.?*

8. *Explain how a farmer decides what to grow or produce. What factors contribute to this choice? For example: type of soil, availability of moisture, climate, frost-free days, farmer's resources (land, capital, machinery, etc.) market for the product, etc.*

9. Students can investigate their own lunches, looking for foods from each of the four food groups, and N.B. food products. Relate the food items to animals or plants on the farm.

10. Construct a flow chart for bread, eggs, dairy products, meat, fruits or vegetables to show the steps and the people involved in producing, processing and transporting the product to the grocery shelf.

11. Write and present a play based on the daily life of the farm family.

12. Prepare a set of agricultural trivia questions for another class of students.

VISIT TO A VEGETABLE FARM

Advance Preparation

a) *Visit a farmer's market or the produce counter of the grocery store and look for fruits and vegetables grown in New Brunswick.*

b) *Taste as many of these as possible.*

c) *Look for ways of preserving vegetables so they can be sold year round (canning, freezing, drying, pickling).*

d) *Find out why some produce is imported.*

Possible Questions for the Farmer *(and answers)*

1. *What is a market garden?*

   (A farm where vegetables are grown to be sold fresh to the consumer, either at a roadside stand, at a farmers' market or at a nearby grocery store).

2. *Are vegetables grown in N.B. sold to the consumer as fresh vegetables?*

   (No, many are sold to a processing plant to be canned, frozen, dried, pickled or made into soups or ketchup).

3. *Why would a farmer decide to grow vegetables?*

   (Some areas of the province have the right type of soil and the right climate to produce vegetables profitably. They are also close enough to a large population of consumers).

4. *What kinds of vegetables are grown in New Brunswick?*

   (Many, many varieties of vegetables are grown here. These include potatoes, peas, and beans for the processing market. Other common crops are cabbage, broccoli, corn, cauliflower, carrots and turnips. Some of the smaller acreage crops include zucchini, beets, brussel sprouts, tomatoes, cucumbers, squash and lettuce).

5. *How are vegetables harvested?*

(Farmers often hire students or seasonal workers to help harvest vegetables. Some crops such as potatoes, peas, beans, corn and carrots are also harvested by mechanical harvesters).

FARM [illegible]RS

The Following Farms Are Available For Tours

* Available To Speak In Classroom

ALBERT COUNTY

Elizabeth Venart
Culereuch Farm
RR#1
Elgin, NB
E0A 1P0 *
PH: 756-3513

Specialty: Sheep
Has visual aids
Any age group
Available: November
Language: E

Ruth-Anne & Fred Waddy
Waddy & Colpitts Ltd.
RR#1
Salisbury, NB
E0A 3E0 *
PH: 372-9255
PH: 372-4429

Specialty: Dairy Farming
Has visual aids
Any age group
Language: E

Kathy Weir
Broadleaf Stock Farm
Hopewell Hill, NB
E0A 1Z0 *
PH: 882-2349

Specialty: Horses, Foxes & Beef Cows
Available: Anytime
NOTE: *Arrangements can be made for class tours to include horseback riding, hay or sleigh ride and a lunch.*
Language: E

CARLETON COUNTY

Cecile & James Blackie
Lamb-4-Ewe Farm
Box 214
Florenceville, NB
E0J 1K0 *
PH: 392-6263

Specialty: Basic Sheep Production
Has visual aids
Any age group
Available anytime
Language: E

Joe Brennan
Brookdale Farms Ltd.
RR#1, Bath, NB
E0J 1E0
PH: 278-5577 PH: 278-5350

Specialty: Dairy
Available any time
Any age group
Language: E

AGROLOGISTS

** Willing To Speak In Classroom and Participate in School Career Days **

Nancy Brown
Hillview Farms Ltd.
RR#3
Florenceville, NB
E0J 1K0 *
PH: 392-5380

Specialty: Potato
No visual aids
Any age group
Available anytime
Language: E

G.A. Cole Enterprises Ltd.
RR#6
Woodstock, NB
E0J 2B0
PH: 328-8775

Specialty: Meat Shop/Killing Plant
Available: January to May
Prefer Junior & Senior High
Language: E

Ralph Carpenter
Ralph Carpenter Farm
RR#3
Woodstock, NB
E0J 2B0 *
PH: 328-2582

Specialty: Potatoes & Beef
Available: Fall
Prefer Elementary, Junior High & Senior High
No. of students: 1 bus load
Language: E

Kenny Graham
Graham Farms Ltd.
RR#4
Centreville, NB
E0J 1H0
PH: 276-3257

Specialty: Dairy Farm
Any age group
Available: Anytime
Language: E

Murray Hubbard
Farming
Wits End
RR#5
Debec, NB
E0J 1J0 *
PH: 277-6309

Specialty: Horticulture & Organic

Has visual aids
Any age group
Available: Anytime
Language: E

Kendall Hunter B.C.A. Hunter&Sons Ltd. RR#3 Florenceville, NB E0J 1K0 PH: 392-5307	Specialty: Potatoes/Potato Packing Available: December to March Any age group Language: E
Don Keenan H.J. Keenan & Sons Ltd. RR#3 Woodstock, NB E0J 2B0 PH: 328-8112	Specialty: Potato & small grain Available: September to October November to February Any age group Language: E
Roel & Melly Omvlee Roelridge Dairy Farm RR#3 Woodstock, NB E0J 2B0 * PH: 328-3012	Specialty: Dairy Farming Has visual aids - slide show Any age group Available September to May Language: E
Shirley Reid Reid Farms Centreville, NB E0J 1H0 PH: 276-4787	Specialty: Mixed Farming, Potato Grains, Peas & Christmas Trees Available: Spring Months Any age group Language: E
Mrs. Fraser Stephenson Stephenson Farms Ltd. Florenceville, NB E0J 1K0 PH: 392-5966	Specialty: Farmwife, Potato Farmer Has visual aids Age group preferred - Intermediate Available: Spring or Fall Language: E
Max van Cingel Killoween Farms Ltd. RR#1 Upper Kent, NB E0J 1Y0 * PH: 278-5560	Specialty: Potatoes No visual aids Highschool preferred Available: Winter Language: E
Allan & Carolyn Van Dine Allan Van Dine RR#7 Woodstock, NB E0J 2B0 * PH: 328-3723	Specialty: Dry Bean Production Has visual aids Any age group Available: October Language: E

AGROLOGISTS

James Blackie Regional Rep. N.B.D.A. RR#2 Florenceville, NB E0J 1K0 * PH: 392-6007(w) 392-6263(h)	Specialty: 4-H Program & Basic Sheep Management Language: E
Neil Mundle Farm Management and Credit Advisor N.B.D.A. RR#2 Florenceville, NB E0J 1K0 PH: 392-6007(w) 392-5577(h)	Specialty: Agr. Past & Present Farm Management The business aspects of farming Language: E
Jack F. Burnham Agriculturist N.B. N.B.D.A. RR#2 Florenceville, NB E0J 1K0 * PH: 392-6007	Specialty: Agriculture in District Language: E
Mr. W. Schrage Secretary Manager N.B. Potato Agency P.O. Box 238 E0J 1K0 PH: 392-6022, 473-3036	Specialty: Potatoes Farm Organization Language: E/F Florenceville, NB

Carol Brennan
Farm Business Consultant
RR#1
Bath, NB
E0J 1E0
PH: 278-5577

Specialty: Agr. Past & Present
Farm Management
The Business aspects of farming
Langugae: E

CHARLOTTE COUNTY

Philip & Betty Christie
RR#1
Moores Mills, NB
*E0G 2L0 **
PH: 466-4305

Specialty: Dairy Farm Management
Has visual aids
High School preferred
Available: Winter
Language: E

Irene P. Gallant
Gallant Farms
RR#3
St. Stephen, NB
E3L 2Y1
PH: 466-2200

Specialty: Beef Farm & Fruit
Any age group
Available: Anytime Fall is apple season
Language: E

Peter & Noeah Heelis
Mayfield Greenhouses
at Gore Farm
RR#2
St. Stephen, NB
E3L 2Z9
PH: 466-5926

Specialty: Fruit Trees & Shrubs
Has visual aids
Elementary preferred
Available: during reg. school year
Language: E

Donna Muir
Fairmile Farm
RR#1
St. Andrews, NB
*E0G 2X0 *, PH: 529-3788*

Specialty: Dairy Farming
No visual aids
Any age group
Available: Anytime
Language: E

Wayne & Tanya McKnight
Reg McKnight Farms
RR#3
St. Stephen, NB
E3L 2Y1
PH: 466-1673

Specialty: Christmas Trees, Apple
Orchards, Greenhouses, Strawberries,
Vegetables & Apple Storage
Available: Anytime
Any age group
Language: E

GLOUCESTER COUNTY

Eugene Chiasson
Les Produits Maraichers de L'ile
C.P. 676
Laméque, NB
E0B 1V0
PH: 344-7878

Specialty: Tomatoes & Flowers
Any age group
Available: May & June
Language: F

Georges Girouard
Chincilla Breeding
P.O. Boite 486
Tracadie, NB
*E0C 2B0 **
PH: 395-2070

Specialty: Chincilla Fur
No visual aids
Any age group
Available: Sept - June
Language: E/F

Roger C. Kaye
Brandy Brook Farms
Box 10, Site 29, RR#7
Bathurst, NB
*E2A 4P6 **
PH: 546-3914

Specialty: Dairy Farm
Has visual aids
Any age group
Available: Early Spring/Late Fall
Language: E

Jean Noel & Judith Lagacé
Au Jardins Naturel Ltee.
C.P. 238
Robertville, NB
E0B 2K0
PH: 548-1987

Specialty: Fruits & Vegetables
Available: October 1991
Any age group
Language: E/F

Marilyn Losier
Miellerie Marian
Box 9, site 15, RR#2
St. Isidore, NB
E0B 2L0 •
PH: 358-2219

Specialty: Beekeeping
Has visual aids
Any age group
Available: 1st May - 30th October
Language: F

Roland Mallais
Erabliere Roland Mallais
Boite 10, Site 8, RR#1
St. Isidore, NB
E0B 2L0 •
PH: 358-2906

Specialty: Maple Syrup Production
Has visual aids
Any age group
Available: Spring
Language: E/F

Jacques & Micheline McNeill
Ferme McNeill
Bte. 129
Pointe-Verte, NB
E0B 2H0 •
PH: 783-8500

Specialty: Vegetable Farming
No visual aids
School age preferred
Available: Nov to March
Language: F

John Riordon
Riordon Farm's
Box 2000, RR#7
Bathurst, NB
E2A 4P6 •
PH: 732-5261

Specialty: Dairy Farming
Has visual aids
Any age group
Available: Anytime
Language: E/F

Charles Robichaud
Bleuet
Boite 695
Tracadie, NB
E0C 2B0
PH: 395-5423

Specialty: Blueberries
Available: September
Prefer Junior High
Language: E/F

Eddy Robichaud
Ferme Robichaud & Fils
C.P. 96
Shippagan, NB
E0B 2P0
PH: 336-9811

Specialty: Potato & Beef
Available: September
Any age group
Language: F

Rosaire St. Croix
2531 Miramichi Ave.
Bathurst, NB
E2A 4B3 •
PH: 546-9735

Specialty: Vegetables
Any age group
Language: E/F

Everett G. Scott
Chaleur Farm
Box 8, Site 38, RR#7
Bathurst, NB
E2A 4P6 •
PH: 546-2937

Specialty: Sheep
No visual aids
Any age group
Available: Anytime
Language: E

D.A. Wade
Sunny Side Farms
1745 Vallee Lourdes
Bathurst, NB E2A 4P6
PH: 546-4085

Specialty: Christmas Tree Plantation
Available: Nov & Dec
Any age group
Language: E/F

AGROLOGISTS

Gaetan Chiasson
Fruit & Vegetable Specialist
NBDA
1425 King Ave.
Bathurst, NB
PH: 547-2088 •

Specialty: Vegetable
specialist & research
Language: F

KENT COUNTY

Jos. G. Allain Ferme Vue la Rivière Ste. Marie de Kent, NB E0A 3A0 PH: 955-3730	Specialty: Small Sheep Farm, with a small chalet along the river-great for a class barbeque or picnic Any age group, approx. 50 students Available: Anytime Language: F
Leopold Bourgeois La Fleu De Prommiere Ltée. C.P. 103 Cocagne, NB E0A 1K0 * PH: 576-9479	Specialty: Apples & Strawberries No visual aids Grades 9-12 preferred Available: Jan/Mid-Feb Language: F/E
R.A. Bourgeois Bourgeois Poultry Ltee. C.P. 65A Grande-Digue, NB E0A 1S0 * PH: 576-6131	Specialty: Production No visual aids Any age group Available: Anytime Language: F/E
Stuart & Martha Bowman Willowisp RR#2(Jardineville) Rexton, NB E0A 2L0 * PH: 523-6315	Specialty: Dairy Available: Anytime Any age group Willing to provide class lecture Language: E
Leslie Cail Cailsmere Farm RR#1 Cail's Mills, Harcourt, NB E0A 2B0 PH: 523-6293	Specialty: Sheep, Beef & Sows Available: Anytime Any age group Language: E
Emery King King Tobacco Enterprise Richibucto Village, NB E0A 2N0 PH: 523-6293	Specialty: Tobacco Any age group Available: June/July Language: E/F
Jerome Reidpah Harmony Hill Farms Main River, NB E0A 1C0 PH: 523-4580	Specialty: Beef Farming No visual aids Any age group Available: anytime Language: E
Roger Richard Ferme Pouce Veret RR#3, Site 17, Bte 5 Rogersville, NB E0A 2T0	Specialty: Vegetables Available: Sept-Oct Prefer Elementary & Junior High Students Language: E/F
Maurice Girouard Agriculture (Grain) C.P. 4013 Place-Champlain Dieppe, NB E1A 6R7 * PH: 855-3799	Specialty: Dried Beans Has Visual Aids Any age group Available: anytime Language: E/F

AGROLOGISTS

Dwitht Balzer *N.B.D.A.* *P.O. Box 5001* *Moncton, NB* *E1C 8R3* *PH: 856-2277*	*Specialty: District Agriculturist* *Available: Anytime* *Language: E*

Roger Theriault
N.B.D.A.
P.O. Box 5001
Moncton, NB E1C 8R3
PH: 856-2277

Specialty: Field Crop Specialist
Available: Anytime
Language: E/F

Duncan Fraser
Farm Management and
Credit Advisor
N.B.D.A.
P.O. Box 5001
Moncton, NB
E1C 8R3
PH: 856-2277

Specialty: Agr. Past & Present
Available: Anytime
Language: E/F

Paul Jensen
Dairy Specialist
N.B.D.A.
P.O. Box 5001
Moncton, NB
E1C 8R3
PH: 856-2277

Specialty: Dairy Specialist
Available: Anytime
Language: E

KINGS COUNTY

Charles Anderson
Scenichaven Farm
RR#3
Wards Creek, NB
E0E 1P0
PH: 433-5410

Specialty: Dairy
Prefer Elementary Students
Available: anytime
Language: E

Alton Chown
Ambleside Farm
RR#1
Belleisle Creek, NB
*E0G 1E0 **
PH: 433-3585

Specialty: Beef Farming
Has visual aids
Any age group
Available: Jan-April
Language: E

Ron DeGooyer
RR#2
Apohaqui, NB
E0G 1Z0
PH: 433-4175

Specialty: Dairy Farm
Any age group
Available: December to March
Language: E

David Drummond
D&M Polled Herefords
RR#3
Hampton, NB
E0G 1Z0
PH: 832-5934

Specialty: Beef Cattle
Any age group
Available: Fall&Winter Months
Language: E

Wiebe Dysktra
Dykstra Farms Havelock
Box 205
Canaan Rd.
Havelock, NB
E0A 1W0
PH: 534-2221

Specialty: Dairy Farm
Available: Anytime
Any age group
Wear Rubber Boots & Old clothes
Language: E

J. Allison Elliott
RR#5
Petitcodiac, NB
*E0A 2H0 **
PH: 756-2358

Specialty: Beef and Hogs
Available: Fall or Late May/June
Junior High Students
Language: E

Robert Gielen
Belleisle Gardens
RR#3
Belleisle Creek, NB
*E0G 1E0 **
PH: 485-2511

Specialty: Greenhouse grower
No visual aids
Any age group
Available: April-May
Laguage: E

Eric & Marjorie Hazelwood *Mermar Dairy Goat Farm* *Penobsquis, NB* *E0E 1L0 ** *PH: 433-2692*	*Specialty: Goat Farm* *Has visual aids* *Available: Fall or Spring* *Language: E*
John & Janet Kilpatrick *Jay Kay Simmentals* *RR#3* *Hampton, NB* *E0G 1Z0* *PH: 832-7740*	*Specialty: Beef Farm & Trout Pond* *Any age group* *Available: Anytime* *Language: E*
Harry A. Law *Hatchery* *H. Law & Sons Ltd.* *RR#1* *Hatfield, NB* *E0G 2A0* *PH: 485-2164*	*Specialty: Poultry, Egg Grading & Chick* *Available: Spring & Fall* *Prefer Junior High Students* *Language: E*
Cynthia MacLeod *Oak Lawn Farm* *Penobsquis, NB* *E0E 1L0* *PH: 433-3967*	*Specialty: Dairy Farm* *Available: Anytime* *Any age group* *Language: E*
Maritime Sod Ltd. *nursery sod* *Millstream Nursery* *RR#2* *Apohaqui, NB* *E0G 1A0* *PH: 433-3156*	*Specialty: Growing trees, shrubs, and* *Available: May to October* *Any age group* *Language: E*
Harley Marr *Birchshade* *RR#5* *Petitcodiac, NB* *E0A 2H0* *PH: 756-2695*	*Specialty: Dairy Farm* *Available: May-June/Sept.-Oct.* *Any age group* *Language: E*
Doug McLaughlin *Bluffhaven Farm Ltd.* *RR#4* *Sussex, NB* *E0E 1P0* *PH: 433-5912*	*Specialty: Dairy* *Any age group* *Available: almost anytime* *Language: E*
Stephen Moffett *Stephen Moffett Farm* *Penobsquis, NB* *E0E 1L0* *PH: 433-4692*	*Specialty: Pork* *Available: Anytime* *Any age group* *Language: E*
Ralph O'Neill- *Elmvale Farm* *RR#3* *Belleisle Creek, NB* *E0G 1E0 ** *PH: 485-2047*	*Specialty: Dairy Farming* *No visual aids* *Any age group* *Available: Sept.-May* *Langauag: E*
Bob Osborne *Corn Hill Nursery* *RR#5* *Petitcodiac, NB* *E0A 2H0* *PH: 756-3635*	*Specialty: Fruit Trees* *Available: Sept.-Oct.* *Any age group* *Footwear-Rubber Boots* *Language: E*

Ken Reicker
Sussex Valley Veg. Farms
RR#5
Sussex, NB
E0E 1P0 •
PH: 433-5758

Specialty: Vegetable Production
Has visual aids
Age 6-18 preferred
Available: Sept.-June

Ruth E. Sherwood
Valley View Farm Ltd.
RR#1
Norton, NB
E0G 2N0 •
PH: 839-2081

Specialty: Dairy Farming
No visual aids
Elementary preferred
Available in afternoons
Language: E

Sussex Poultry
Canada Packers Poultry
Sussex, NB
EOE 1P0
PH: 433-3320

Specialty: Poultry
Available: Anytime
All age groups

AGROLOGISTS

Brian G. White
Manager-Agricultural
Employment Services
P.O. Box 1478
Sussex, NB
E0E 1P0
PH: 433-1734

Specialty: Farm Labour Pool
Language: E

MADAWASKA COUNTY

Oscar Laforge
Ferme Aqua-Zoo
RR#3
Edmundston, NB
E3O 3K5 •
or more.
PH: 739-9149

Specialty: Petting Zoo with fish & pond
Has visual aids
Any age group
Available: May to August
NOTE: cost $1.00 each for groups if 20

Less than 20 is $2.00 each

Eddy Dugas
Verger Dugas
588 rue Principal
St.-Leonard, NB
Fridays
E0L 1M0
PH: 423-7729

Specialty: Apple orchards
Any age group
25 per visit
Available: September, on Mondays and

Language: E

Paul-Emile Soucy
C.P. 149
Saint-Basile, NB
E0L 1H0 •
PH: 263-8721

Specialty: Sheep & Potatoes
Any age group
Available: Anytime
Language: E/F

Harry Dydstra
Tri-Star Farms
RR#4
Grand-Falls, NB
E0J 1M0
PH: 473-5133

Specialty: Dairy & Tree Stall
Available: Spring Months
Any age group
Footwear-Rubber Boots
Language: E

Alban Boulay
Ferme Avicol Boulay Ltee
991, Rte 205
St.-François, NB
E0L 1J0
PH: 992-2633

Specialty: Poultry Farming
Prefer Elementry & Junior High
Students
Maximum: 15 or less
Anytime
Overalls necessary
Language: F

Gaëtan Soucy
Ferme Gaëtan Soucy
727 Chemin Lac-Unique
St.-François, NB
E0L 1J0
PH: 992-3505

Specialty: Pigs
Any age group
Available: Anytime
Maximum 25
Don't wear good clothes
Language: F

Jeanne Cyr
Ferme Jeanne Cyr
721 Chemin Lac-Unique
St.-François, NB
E0L 1J0
PH: 992-3505

Specialty: Pigs
Any age group
Available: Anytime
Maximum 25
Wear old clothes
Language: F

Jean-Claude Bolduc
23 Chemin Petite Rivière
St.-François, NB
E0L 1J0
PH: 992-2901

Specailty: Poultry
Any age group
Anytime
Language: F

Roland Albert
Porcherie Duroc Inc.
C.P. 179
St.-François, NB
boots
E0J 1J0
PH: 992-2985, 992-2905

Specialty: Pigs
Any age group
Available: September (weekdays)
Wear plastic bags on shoes or rubber

Language: E/F

Joel Bouchard
Ferme Feminine
1341 Route 205 Quest
Connors, NB
E0L 1J0
PH: 992-2428

Specialty: Pigs
Anytime
Any age group
Prefer 20-25 students
Do not wear good clothes
Cover shoes with plastic bags
Language: E/F

Régis Ouellette
Ferme Maurifils
1149 Route 120
St. Hilaire, NB
PH: 992-3955

Specialty: Dairy
Anytime
Any age group
Approx. 30 students per visit
Language: E/F

Hermel Ouellette
Ferme-Montagne-Rouge
RR#1
Edmundston, NB
E3V 3K3 •
PH: 735-6998

Specialty: Dairy
Available: April, May, Sept.-Nov.
Any age group
Approx 30 students
No Smoking
Language: F

Maurice V. Thibodeau
Rivière-Verte, NB
E0L 1E0
PH: 263-5311

Specialty: Potatoes
Anytime
Notify in advance
Any age group but prefer Junior High
Langauge: F

AGROLOGISTS

Nelson Paradis
Farm Mangement Counscellor
N.B.D.A.
P.O. Box 5001
Grand Falls, NB
PH: 473-5515 •

Specialty: Farm Management
& Credit Advisor
Language: F

Alyre Levesque
N.B. Community College
C.P. 1270
Grand Falls, NB
E0J 1M0
PH: 473-2980 •

Specialty: Career in Agriculture
Agriculture & Economic
Importance
Language: F

Richard Dorion
Department Head
N.B. Community College
C.P. 1270
Grand Sault, NB E0J 1M0
PH: 473-2980 •

Specialty: Careers in Agriculture
Language: F

Gilles P. Como
Marketing Representative
Chemargo
P.O. Box 1976
Grand Falls, NB
E0J 1M0
PH: 473-6621

Specialty: Careers in Agriculture/
Production/Systems/Pestisides used
combating insects
Language: E/F

Ghislain Pelletier
Agrologist, N.B.D.A.
Agriculture
C.P. 5001
Grand Falls, NB
E0J 1M0
PH: 473-5515

Specialty: Potato Production/
University requirements and courses in

Language: E/F

Hubert Cyr
District Agriculturalist, N.B.D.A.
121 Church Street
P.O. Box 5001
Edmundston, NB
E3V 1J9
PH: 739-9545

Specialty: University Studies
in Agriculture Requirements
Language: E/F

Raymond Racicot
Agriculture Professor
C.P. 1270
Grand Falls, NB
E0J 1M0
PH: 473-2980

Specialty: Career in Agriculture
Language: F

NORTHUMBERLAND COUNTY

Jean-Eudes Chiasson
RR#3, Boite 488
Rogersville, NB
E0A 2T0 •
PH: 779-6033

Specialty: Vegetables, Beef&Grain
No visual aids
Any age group
Available: Winter
Langauge: E/F

Paul Duplessis
Bartri Farm
RR#3
Chatham, NB
E1N 3A3 •
PH: 773-5380

Specialty: Limousin Beef Cattle
Has visual aids
Any age group
Available: Winter
Language: F

John MacDonald
John MacDonald & Sons
Box 882, RR#1
Douglastown, NB
E0C 1H0
PH: 773-4664

Specialty: Beef, Cow & Calf
Available: Evenings & Weekends
Language: E

AGROLOGISTS

Vernon Taylor
Regional Director
N.B.D.A.
337 Water Street
Chatham, NB
E1N 1B2
PH: 773-7091 •

Specialty: Farm Management
(Financial)
Language: E

QUEENS COUNTY

Milton D'Aoust
D'Aoust Farms
Youngs Cove Road, NB
E0E 1S0 •
PH: 488-2402, 488-2575

Specialty: Poultry & Fruit Crop
No visual aids
Grades 7-12 preferred
Available: Anytime
Language:

Gabrield Kretzschman
Big-K-Ranch Ltd.
RR#1
Gagetown, NB
E0G 1V0 •
PH: 488-2407

Specialty: Horses (Ranching)
Has visual aids
8-12 year olds preferred
Available Sept.-Nov.
Language: E

D.J. Hugenholtz
RR#2
Cody's, NB
E0E 1E0
PH: 362-2181

Specialty: Dairy Farm
Available: Anytime
Any age group
Language: E

Stirling Nickerson
Tide's End Farm Ltd.
RR#1
Hampstead, NB
E0G 1Y0
PH: 488-3091
danger
Language: E

Specialty: Broiler Chickens
Available: Anytime
Any age group
Footwear-Rubbers
No students who have contact with other chickens 72 hours prior to visit due to

of transmitting disease.

RESTIGOUCHE COUNTY

Anthony Duivenvoorden
Beachland Farms
RR#1
Jacquet River, NB
E0B 1T0
PH: 237-2857

Specialty: Dairy Farm
Available: 1st half of June & Sept.
Any age group
No. of students: 25
Language: E

Nick Duivenvoorden
Shore-View
P.O. Box 60
Jacquet River, NB
E0B 1T0

Specialty: Dairy Farming
No visual aids
Any age group
Available: Anytime
Langauge: E

Jean-Paul Landry
Landry's Strawberry World
Belledune, NB
E0B 1G0 •
PH: 522-2905

Specialty: Agriculture, Strawberries, Fruits & Vegetables
High school students preferred
Available: Anytime
Language: E/F

Armand Levesque
Armand Levesque Fils Ltée.
C.P. 1, Box 10, RR#1
Campbellton, NB
E3N 3E7
PH: 759-7694

Specialty: Dairy
Prefer Elementary & Junior High
Language: F

André Arpin
Ferme Ovine André Arpin
time
C.P. 362
Kedgwick, NB
E0K 1C0
PH: 284-2709

Specialty: Sheep & Grain Crops
Available: Beginning of Feb.-lambing

Any age group
Cannot visit other farms and then this one due to the danger of transferring germs & disease
Language: F

SUNBURY COUNTY

Michael & Wendy Bourque
E.J. Bourque & Sons
Bourque Lane, Box 1
Sunbury Co., NB
E3B 4X2 •
PH: 450-3904

Specialty: Dairy Farms
Available: Anytime
Any age group
Wear Rubber Boots
Language: E

Stuart Bridges
Bridges Farms Ltd.
RR#2
Fredericton, NB
E3B 4X3 •
PH: 357-9332

Specialty: Vegetable Farming & Beef Feed Lot
Available: Spring
Junior High & Early High School Students
Language: E

Gerrit & Marlene Groenenberg
Freshet Holsteins
Hoyt, NB
E0G 2B0 •
PH: 687-4530

Specialty: Dairy Farm
Available: Anytime
Any age group
Language: E

Mr. & Mrs. Edward Hartt
Hartt's U-Pick
117 Prides Landing Road
Fredericton Junction, NB
E0G 1T0 •

Specialty: Strawberry Growing
Has visual aids
Any age group
Available: Anytime
Language: E

Karl Harvey
Harvey's Vegetables
RR#2
Fredericton, NB
E3B 2B0 •
PH: 357-7830

Specialty: Vegetable Farming
has visual aids
Junior High preferred
Available: Nov. to Apr.
Language: E

Wayne Kirkpatrick
LoHi Farm
Hoyt, NB
E0G 2B0 •
PH: 687-4483

Specialty: Dairy Farming
No visual aids
Any age group
Available: Anytime
Language: E

Blair Stirling
Stirling Fruit Farm
RR#1
Gagetown, NB
E0G 1V0
PH: 488-2147

Specialty: Apple Orchard
Available: Anytime
Any age group
Language: E

VICTORIA COUNTY

Conrad Toner
Claude & Conrad Toner
P.O. Box 1283
Grand Falls, NB
E0J 1M0 •
PH: 473-2673

Specialty: Potato Farming
No visual aids
Any age group
Available: Anytime
Language: E

Robert Thériault
RR#5
Grand-Sault, NB
E0J 1M0 •
PH: 473-2763

Specialty: Grains
Visual aids: Photos
Any age group
Available: Sept.,March, May
Take caution not to be around machinery with loose clothing
Language: E/F

Stephen DeMerchant
RR#1
Arthurette, NB
E0J 1C0 •
PH: 356-2222

Specialty: Dairy Farm
Visual aids: Milk & The Dairy Industry
Any age group
Available: Anytime
Language: E

Damon McCarthy
RR#1
Grand Falls, NB
E0J 1M0
PH: 553-6721

Specialty: Dairy Farm
Visual Aids: Milk & The Dairy Industry
Any age group
Language: E

Mrs. Helen Funk
RR#1
New Denmark, NB
E0J 1T0 •
PH: 553-6721

Specialty: Potatoes
Visual Aids: Booklets on the Potato & Agriculture in Victoria County
Language: E

Alban Watson *RR#2* *New Denmark, NB* *June* *E0J 1T0* • *PH: 553-6425*	*Specialty: Cream Producer* *Prefer: Elementary & Junior High* *Available: Spring -Butter made in April-* *Footwear: Rubber Boots* *NOTE: May provide homemade ice cream as part of tour, upon request* *Language: E*
Neville Delong *RR#4* *Perth-Andover, NB* *E0J 1V0* *PH: 273-3326*	*Specialty: Dairy, Beef, Potato* *Visual Aids: Video on Beef & milk* *Any age group* *Available: Sept-Oct & May- June* *Language: E*

AGROLOGISTS

Ghislain Pelletier *Agrologist* *N.B.D.A.* *C.P. 5001* *Grand Falls, NB* *E0J 1M0* *PH: 473-5515*	*Specialty: Potatoe Production/ University requirements and courses in agriculture* *Language: E/F*
Hubert Cyr *District Agriculturist, N.B.D.A.* *121 Church Street* *P.O. Box 5001* *Edmundston, NB* *E3V 1J9* *PH: 739-9545*	*Specialty: University Studies in Agriculture and requirements* *Language: E/F*
Gilles P. Como *Markenting Representative* *Chemagro* *P.O. Box 1976* *Grand Falls, NB* *E0J 1M0* *PH: 473-6621*	*Specialty: Careers in Agriculture/production systems/pestisides used in combating insects* *Language: E/F*

WESTMORLAND COUNTY

Regional C. Acton *Storeview Farms* *RR#2* *Sackville, NB* *E0A 3C0* • *PH: 536-1886*	*Specialty: Beef* *Available: Spring and Fall* *Prefer Junior & Senior High Students* *Approx. 20 students* *Footwear - Rubber Boots* *Language: E*
Robert & Alma Acton *R.A. Farm* *RR#2* *Sackville, NB* *E0A 3C0* •	*Specialty: Beef Farming* *No visual aids* *15-20 age preference* *Available: Winter* *Language: E*
Peggy Balzer *Whitfiled Farm* *RR#2* *Petitcodiac, NB* *E0A 2H0* • *PH: 756-8263*	*Specialty: Sheep* *Has visual aids* *Younger students preferred* *Available: anytime -Prefer April or May* *Language: E*
Joe Connors *Brookdale Farm* *RR#1* *Scoudouc, NB* *E0A 1N0* • *PH: 532-5274*	*Specialty: Dairy, Beef and Sheep* *Has visual aids* *Any age group* *Available anytime except lambing time* *Language: E*

Farm Credit Corporation Canada
1133 St. George Blvd., Suite 230
Moncton, NB
E1E 4E1
PH: 857-6595

Specialty: Long term mortgage
lender to farmers whose principal
is farming
Available: Anytime except Monday
Prefer Junior High Students
Language: E/F

Eike Futter
Pine Grove Farms
RR#1
Port Elgin, NB
E0A 2K0 *
PH: 538-2835

Specialty: Animal Husbandry & Mrkt./
turkey, hogs & beef
No visual aids
School age preferred
Available: Jan. to March
Language: E/F

Gary & Susan Goddard
W.I. Goddard & Son
RR#2
Petitcodiac, NB
E0A 2H0 *
PH: 756-2302

Specialty: Farming in general/
Dairy Operation
Any age group
Available: Anytime
No visual aids
Language: E

Allan W. Goodwin
Goodview Farm
RR#3, Box 78
Port Elgin, NB
E0A 2K0
PH: 538-2935

Speciality: Sheep & Beef
Available: Winter & Spring months
Any age group
Language: E

Charlie & Carol Kelly
Irishview Farms
RR#4, Box D 406
Moncton, NB
E1C 8J8
PH: 382-3888

Specialty: Dairy & Poultry
Available: November to April
Any age group
Language: E

Willie Leblanc
Willie Leblanc & Sons Ltd.
RR#1, Box 369
Memramcook, NB
E0A 2C0 *
PH: 756-2676, 758-2584

Specialty: Dairy Farming
No visual aids
Grades 5 & 6 preferred
Available: Autumn & Winter
Language: E/F

Ralph Lockhart
Atlantic Gold
(Lockhart Apiaries Inc.)
RR#1
Moncton, NB
E1C 8J5 *
PH: 855-6116

Specialty: Beekeeping
Has visual aids
Any age group
Available: Winter months
Language: E

Gerry Lutes
Lutescroft Farms Ltd.
RR#1
Moncton, NB
E1C 8J5
PH: 852-3606

Specialty: Dairy
Available: Anytime
Any age group
Footwear: Rubber boots
Language: E

Andre Methe
Pepiniere D. Methe Nursery
312 Chemin Acadie
Cap-Pele, NB
E0A 1N0 *
PH: 577-4701

Specialty: Nursrey
Has visual material
Any age group
Available: May/June & Sept/Oct.
Language: E/F

Michael & Debbie Mullin
Mullin Dairy Farm (Glenvista)
RR#1
Moncton, NB
E1C 8J5
PH: 577-4701

Specialty: Dairy Farm
Any age group
Available: Spring & early Summer
Footwear: Rubber boots & dark clothing
Language: E

Fred Niles
Niles Farm
RR#1, Box 81
Cap Pele, NB
E0A 1J0
PH: 577-2749

Specialty: Sheep & mixed farming
Available: May/June
Prefer Junior High Students
Language: E

Ernest J. Partridge & Sons
Box 217
Dorchester, NB
E0A 1M0
PH: 379-6663

Specialization: Beef
Available: March & April
Prefer Junior High Students
Language: E

Alan & Chris Prescott
Hazel, Alan & Chris Prescott
Middle Sackville, NB
E0A 2E0 •
PH: 536-1298

Specialty: Dairy & Beef
No visual aids
Any age group
Available: Anytime
Language: E

Edgar Robichaud
Ferme Robichaud
RR#1, C.P. 8, Site 45
Robichaud, NB
E0A 2S0 •
PH: 577-6040

Specialty: Vegetable Farmer
No visual aids
High School preferred
Available: Nov. - March
Language: E/F

Con Rommens
Roga Farm
RR#2
Port Elgin, NB
E0A 2K0
PH: 538-2667

Specialty: Dairy
Available: December to May
Any age group
Footwear: Boots
Language: E

Cornelius Simon
Corbett Farms
RR#9
Scotch Settlement Road
Moncton, NB
E1C 9K3 PH: 389-8248

Specialty: Dairy Farm
Available: Anytime
Any age group
Footwear: Boots
Language: E

Birchgrove Stables
Morgan Horses
c/o Harvey E. Ronald
RR#1
Scoudouc, NB
E0A 1N0
PH: 532-4224

Specialty: Beef Farm(Hereford) &

Available: May
Prefer Junior High Students
Language: E

Laurie Stewart, Manager
Island Fertilizers Ltd.
P.O. Box 388
Fredericton Road
Salisbury, NB
E0A 3E0
PH: 372-9309

Available: September to March
Prefer Junior & Senior High Students
Footwear: Boots & Old clothes
Specialty: Fertilizer
Language: E

George J. & Ronald G. Trueman
Prospect Farm
RR#3
Sackville, NB
E0A 3C0
PH: 536-1407

Specialty: Dairy, Carrots & Blueberries
Available: Anytime
Any age group
Language: E

Jocelyn & Randy Wallace
New Dimension Farm
RR#1
Scoudouc, NB
E0A 1N0 •
PH: 532-4095

Specialty: Beef & Dairy Farming
Has visual aids
Any age group
Available: Anytime
Language: E/F

Yake Wesselius
Wesselim Farm
RR#1
River Glade, NB
E0A 2P0
PH: 372-9298

Specialty: Dairy
Available: September to May
Any age group
Language: E

Allan & Sylvia Saunders Windrush Farm RR#2 Petitcodiac, NB E0A 2H0 * PH: 756-7987	Specialty: Dairy Farming Has visual aids Any age group Available: Anytime Language: E

AGROLOGISTS

Neil McFieman Regional Pesticide Officer Agriculture Canada P.O. Box 6088 Moncton, NB E1C 8R2	Specialty: Pesticides/ Agriculture Canada Language: E Canada PH: 857-7671 *
Dale A. Kelly Agriculture Consultant Agro Dak Inc. 37 Fairway Blvd. Riverview, NB PH: 386-8747 *	Specialty: Any general topic in agriculture Language: E

YORK COUNTY

Eric A. Brewer Mountarity Farm Ltd. Burtt's Corner, NB E0H 1B0 PH: 363-2379	Specialty: Dairy Anytime Any age group Language: E
David Cobum W.B. Cobum Sons Ltd. 279 Keswick Ridge Rd. Keswick Ridge, NB E0H 1W0 *	Specialty: Farming in general Has visual aids Any age group Available: Anytime Language: E
Brian W. Connor Bricon Holsteins Millville, NB E0H 1M0 * PH: 463-2409	Specialty: Dairy Farming Has visual aids Any age group Available: Anytime Language: E
David Duplessis Tulsa Holsteins Keswick, NB E0H 1N0 PH: 363-3507	Specialty: Dairy Farm Available: Oct. to May Any age group Language: E
Margaret Hamilton Happy Apples Acres RR#4 Fredericton, NB E3A 4X5 PH: 472-1819	Specialty: Apples Available: Fall Months Prefer Elementary Students Language: E
Joe Schenkels RR#2 Boiestown, NB E0H 1A0 PH: 369-2466	Specialty: Dairy Available: Anytime Any age group Language: E
Robert Speer Top of the Morning Farm RR#2 Millville, NB E0H 1M0 * PH: 463-2365	Specialty: Dairy Farm/Beekeeper Has visual aids Any age group Available: Winter Months Language: E
Maarten Juan Dom Double OORD Farm RR#2 Lower Hainesville, NB E0H 1J0 * PH: 463-2675	Specialty: Dairy Has visual aids Any age group Available: Anytime Language: E

Dirk Vanoord
Vanoord Holsteins
RR#2
Lower Hainsville, NB
E0H 1J0
PH: 463-2234

Specialty: Dairy
Available: Anytime
Any age group
Footwear: Rubber Boots
Language: E

Wetmore J.R. (Jack)
Wetmore's Nursery & Sod
RR#6
Fredericton, NB
E3B 4X7 •
PH: 472-3357

Specialty: Nursery & Sod Farm
Available: May to Sept.
Prefer Senior High
Language: E

AGROLOGISTS

Merrit Scott
Quality Assurance
Co-ordinator
N.B.D.A.
P.O. Box 6000
Fredericton, NB
PH: 453-2427 •

Specialty: Quality Control
and inspection
Language: E

Karel Michalica
N.B.D.A.
P.O. Box 6000
Fredericton, NB
E3B 5H1
PH: 453-2109 •

Specialty: Soils & conservation
Language: E

Marcel Dawson
Agricultural Program Officer
Agriculture Canada
P.O. Box 2222
Fredericton, NB
PH: 452-4964 •

Specialty: Plant
Quarantine principles
Language: E/F

Andrew Currie
Greenhouse Specialist
N.B.D.A.
P.O. Box 6000
Fredericton, NB
PH: 453-3474 •

Specialty: Horticulture
in general
Language: E

Sherif H. Fahmy
Pedologist (soil scientist)
Agriculture Canada
P.O. Box 20280
Fredericton, NB
E3B 4Z7
PH: 452-3260 •

Specialty: Soils as a
Resource in agriculture
Language: E

Agnes Murphy
Biologist (plant pathology)
Agriculture Canada
P.O. Box 20280
Fredericton, NB
E3B 4Z7
PH: 452-3260 •

Specialty: Plant
Pathology
Language: E

Paul Breau
Manager Agriculture
Bank of Montreal
505 King St.
P.O. Box 70
Fredericton, NB
E3B 4Y5
PH: 453-0249 •

Specialty: Financing Your
Farm Business
Language: E/F

David R. Bell
District Sales Manager
United Agr. Products
RR#3
Harvey Station, NB
E0H 1H0
PH: 366-3305 •

Specialty: Nova Scotia
Agriculture College/
Resumes/Selling yourself
in the workforce
Language: E

Shirlyn Coleman
Plant Propagation Centre
N.B.D.A.
P.O. Box 6000
Fredericton, NB
PH: 453-2717 •

Specialty: Plant tissue culture
Language: E

John Brennan
Chairman & Chief
Executive Officer
Potatoes Canada
500 Beaverbrook Court
Fredericton, NB
E3B 4X4
PH: 453-0788 •

Specialty: Seed Potato
Industry in N.B.
(economy aspect)
Export market of seed
potatoes
Slides available
Language: E

Brian Duplessis
Regional Director
N.B.D.A.
P.O. Box 6000
Fredericton, NB
E3B 5H1
PH: 453-2272 •

Specialty: Careers in
agriculture
Language: E

Gerry Chevrier
Vegetable Specialist
N.B.D.A.
P.O. Box 6000
Fredericton, NB
E3B 5H1
PH: 453-2108 •

Specialty: Horticulture
Plant Science
Language: E

Dr. H. De Jong
Plant Breeder (potato)
Agriculture Canada
P.O. Box 20280
Fredericton, NB
E3B 4Z7
PH: 452-3260 •

Specialty: Potato Breeder
Genetics/plant breeding
Language: E

Gary Hawkins
Seed Potato Production
Specialist
N.B.D.A.
P.O. Box 6000
Fredericton, NB
E3B 5H1
PH: 453-3614
PH: 392-6007 •

Specialty: Applied agriculture
research
Language: E

Carl Duivenvoorden
Agronomist
Potatoes Canada
500 Beaverbrook Court
Fredericton, NB
E3B 5X4
PH: 453-0788(w)

Specialty: International
Agricultural Development/
Food Systems
Language: E

NEW BRUNSWICK FARM MARKET ASSOCIATION MEMBERS

The following resource people are available to speak in the classroom.
**Note - Some may be contacted for farm tours.*

CARLETON

Evanhill Farms
George & Roberta Evans
RR#3
Woodstock, NB
E0J 2B0
PH: 328-3516

Type: Farmers' Market
Market Specialty: vegetables, apple cider, fruits

Haywards Potato House
Shirley, Leighton, Shauna & Lanson Hayward
RR#6
Woodstock, NB
E0J 2B0
PH: 328-3650

Type: Roadside Stand
Market Specialty: vegetables, bedding, fruits & seeds

CHAROLTTE

Grand Manan Farmer's Market
Pam & Marilyn Cronk
Norter Head, Grand Manan
E0G 2M0
PH: 662-3318

Type: Farm Market
Market Specialty: vegetables and apples

KINGS

Sussex Farmers Market
c/o Barbara Ayres
P.O. Box 205
Sussex, NB
E0E 1P0
PH: 433-1351

Type: Farm Market
Market Specialty: Fresh vegetables, organic vegetables, honey

Whaelghinbran Farm
Susan Tyler & Clark Philips
Penobsquis, NB
E0E 1L0
PH: 433-3935

Type: Farm Market/Roadside Stand
Market Specialty: vegetables

Bates U-Pick
Bob & Janice Bates
P.O. Box 712
Hampton, NB
E0G 1Z0
PH: 485-2497

Type: Roadside Stand, U-Pick
Market Specialty: Local produce, strawberries

Strawflower Ridge
Donna Savage
RR#2, Site 22, Box 9
Darlings Island
Hampton, NB
PH: 832-4827

Type: Roadside Stand
Market Specialty: flowers

The Herb Farm
Joyce & Clinton Wiezel
RR#4
Norton, NB
E0G 2N0
PH: 839-2140

Type: Roadside Stand
Market Specialty: herbs, greenhouse and field produce

GLOUCESTER

Les Légumes à Daniel
Daniel Boudreau & Madeline Michaud
Box 9, Site 15
Robertville, NB
E0B 2K0

Type: U-Pick
Market Specialty: Strawberries, vegetables

Les produits Maraichers
De L'ile
Eugène Chiasson
Lamèque, NB
E0B 1V0
PH: 344-0314

Type: Roadside Stand, U-Pick
Market Specialty: Tomatoes, strawberries, rasberries, flowers, bedding plants

NORTHUMBERLAND

Spruceshade Farm
Wera & Ben Baldwin
RR#2
Chatham, NB
E1N 3A2
PH: 622-0314

Type: Roadside Stand
Market Specialty: Fresh vegetables

QUEENS

Orchard Farm
Frances & Joanne Orchard
Young's Cove Road, NB
E2V 2G3
PH: 357-6997

Type: Roadside Stand
Market Specialty: Strawberries and early fresh vegetables

Slocum's Farm Fresh Produce
Reg & Carolyn Slocum
Young's Cove Rd, NB
PH: 362-5544

Type: Roadside Stand, U-Pick
Market Specialty: maple products, honey, fresh vegetables, strawberries

Belyea's Farmers Market
Barbara & Emery Belyea
Young's Cove Rd., NB
E0E 1S0
PH: 488-2542

Type: Roadside Stand, U-Pick
Market Specialty: potatoes,
corn, carronts, tomatoes, strawberries

Stirling Fruit Farm Ltd.
Blair Stirling
RR#1
Gagetown, NB
E0G 1V0
PH: 488-2147

Type: Roadside Stand
Market Specialty: apples,
vegetables

Bloom's n Things
Brian & Shirley Sinton
Hwy #7
Welsford, NB
E0G 3G0
PH: 486-2060

Type: Roadside Stand
Market Specialty: Bedding
plants, vegetables

Meadowview Honey Farm
Bruce & June Palmer
Cody's, NB
E0E 1E0

Type: Farm Market
Market Specialty: Honey
Products

SUNBURY

Rosenfeld's U-Pick
Stephen & Rosyln Rosenfeld
RR#1
Oromocto, NB
E2V 2G2
PH: 357-9582

Type: U-Pick
Market Specialty: Strawberries

Wasson's Produce
Ted Wasson
RR#1
Ripples, NB
E0E 1M0
PH: 385-2370

Type: Roadside Stand, U-Pick
Market Specialty: Fresh Fruit,
vegetables & strawberries

WESTMORLAND

Boyd's
Chirs & Reid Boyd
River Glade, NB
E0A 2P0

Type: Farmer's Market
Market Specialty: fruits,
vegetables

Scoudouc River Farm
Maurice & Aline Cormer
RR#1, Box 109
Scoudouc, NB
PH: 532-2169

Type: Roadside Stand
Market Specialty: vegetables

Todall Farms
Brian & Agnes Todoschuk
RR#1
River Glade, NB
E0A 2P0
PH: 372-5811

Type: U-Pick
Market Specialty: strawberries,
raspberries

YORK

Ingraham Bros.
RR#2
Nackawic, NB
E0H 1P0
PH: 575-8564

Type: Farm Market
Market Specialty: Maple syrup
& mixed vegetables

Love's Farm
Harold & James Love
RR#1
Mouth of Keswick, NB
E0H 1N0
PH: 363-2335

Type: Farm Market
Market Specialty: Pork roast,
chops, sausage, home smoked
hams & bacon

Good Spring Farm
Karen & Brock Davidge
730 Keswick Ridge Road
Mouth of Keswick, NB
E0H 1N0
PH: 363-3744

Type: Roadside Stand/Farm Market
Market Specialty: Herbs, fruits,
vegetables

Freddie's Family Farm
Fred & Ethel Duplessis
RR#1
Mouth of Keswick, NB
E0H 1N0
PH: 363-2486

Type: Roadside Stand
Market Specialty: potatoes,
corn, tomatoes, apples, honey

K.R. Farms
Eldon & Aubrey McCullough
RR#3
Mouth of Keswick, NB
E0H 1N0
PH: 363-2265

Type: U-Pick
Market Specialty: strawberries
raspberries, corn

Pinnock's Farm
Martin Pinnock
P.O. Box 155
Stanley, NB
E0H 1T0
PH: 367-2838

Type: U-Pick
Market Specialty: Strawberries,
Christmas Trees

MacDougall's U-Pick
Allan MacDougal
RR#1
Fredericton, NB
E3B 4X2
PH: 446-5063

Type: Roadside Stand
Market Specialty: U-Pick,
fresh vegetables, strawberries,
raspberries, corn, & apples

AGRICULTURAL ORGANIZATIONS AND THE NEW BRUNSWICK DEPARTMENT OF AGRICULTURE

For those requiring futher information regarding speakers of other projects, the following is a reference list of agricultural organizations and Department of Agriculture Regional and District offices in New Brunswick.

The following Marketing Boards are located at:

1115 Regent Street
Fredericton, NB
E3B 3Z2
PH: (506) 452-8101

N.B. Cattle Producers Association - Bill Lunnie
N.B. Apple Marketing Board - April Sexsmith
N.B. Greenhouse Products Marketing Board - April Sexsmith
N.B. Turkey Marketing Board - April Sexsmith

Dino Kubik
N.B. Chicken Marketing Board
115 Prospect Street
Fredericton, NB
E3B 2T7
PH: 453-0111

Mr. Watson Cudmore
N.B. Hog Marketing Agency
P.O. Box 750
Moncton, NB
E1C 8N5
PH: 855-6324

Mr. Cecil Laird, President
N.B. Bee Keepers Association
50 Caledonia Road
Moncton, NB
E1C 1B6
PH: 372-5981 839-2172

N.B. Federation of Agriculture
1115 Regent Street
Fredericton, NB
E3B 3Z2
PH: 548-4501

Ms. Mamey Robinson
N.B. Milk Marketing Board
P.O. Box 490
Sussex, NB
E0E 1P0
PH: 433-1775

Mr. R.A. Gorham
N.B. Egg Marketing Board
161 Westmorland Street
Fredericton, NB
E3B 3L6
PH: 455-7605

N.B. Farm Women
Frances Frazee
RR#3
Norton, NB
E0G 2N0

Fédération des Agriculteurs
et Agriucultrices du N.-B.
165 Blvd. Hébert
Edmundston, N.-B.
E2V 2S8
PH: 735-4886

REGIONAL AGRICULTURAL OFFICES

BATHURST REGIONAL OFFICE
N.B. Agriculture
1425 King St.
Bathurst, NB
E2A 1S7
PH: 548-4501

BON ACCORD ELITE SEED FARM
RR#6
Perth-Andover, NB
E0J 1V0
PH: 273-2703

CHATHAM REGIONAL OFFICE
N.B. Agriculture
337 Water Street
Chatham, NB
E1N 1B2
PH: 773-7091

DALHOUSIE DISTRICT OFFICE
N.B. Agriculture
P.O. Box 1148
Dalhousie, NB
E0K 1B0
PH: 684-4253

EDMUNDSTON DISTRICT OFFICE
N.B. Agriculture
121 Church Street
Edmundston, NB
E3V 1J9
PH: 739-9545

MONCTON REGIONAL OFFICE
N.B. Agriculture
P.O. Box 5001
Moncton, NB
E1C 8R3
PH: 856-2277

WICKLOW REGIONL OFFICE
N.B. Agriculture
RR#2
Florenceville, NB
E0J 1K0
PH: 392-6007

N.B. HORTICULTURE NURSERY
Hoyt, NB
E0G 2B0
PH: 687-4272

PERTH-ANDOVER DISTRICT OFFICE
N.B. Agriculture
Main St.
Perth-Andover, NB
E0J 1V0
PH: 273-2269

RICHIBUCTO DISTRICT OFFICE
N.B. Agriculture
P.O. Box 5001
Richibucto, NB
E0A 2E0
PH: 523-9796

SAINT QUENTIN DISTRICT OFFICI
N.B. Agriculture
Latour Street
Saint-Quentin, N.B.
E0K 1J0
PH: 235-2683

FREDERICTON REGIONAL OFFICE
N.B. Agriculture
P.O. Box 6000
Fredericton, NB
E3B 5H1
PH: 453-2272

GRAND FALLS REGIONAL OFFICI
N.B. Agriculture
P.O. Box 5001
Grand Falls, NB
E0J 1M0
PH: 473-5515

SUSSEX REGIONAL OFFICE
N.B. Agriculture
P.O. Box 5001
Sussex, NB
E0E 1P0
PH: 432-2000